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Incentives for Energy Efficient Lighting (Effective January 23, 2023)

Energy Trust offers cash incentives to help you implement qualifying energy efficient lighting measures in eligible existing buildings. If you are interested in applying for incentives listed, contact the program using the information located at the bottom of the page.

To apply for lighting incentives, projects must (1) be submitted to Energy Trust by a Business Lighting trade ally for review and pre-qualification before any equipment purchase or installation activity begins; and (2) be pre-qualified for at least \$100 in incentive funding.

Only approved trade allies can offer Energy Trust's Business Lighting incentives to their customers for qualifying measures. All proposed lighting projects must be submitted by an enrolled Energy Trust Business Lighting trade ally in accordance with program participation requirements.

It is important that you contact the program for a project review before making purchases or taking other steps that may cause your project to be ineligible for incentives. Additional requirements apply. Program details, including incentives, are subject to change and budget availability. To learn more about Energy Trust's available offers and incentives, visit our website at <a href="https://www.energytrust.org">www.energytrust.org</a>.

#### **Lighting Project Specifications & Requirements**

The following qualified product lists provide technical specifications for certain lighting products. Not all products listed qualify for Energy Trust incentives. To qualify for incentives, products must be new and measure installations must also pass Energy Trust cost-effectiveness criteria and meet other program requirements. Contact the program for details.

- Proposed LED products must be on the appropriate Qualified Product List (QPL), as indicated below, and under the
  appropriate categorization to be eligible for incentives:
  - QPL for LED fixtures (except recessed canister downlights) and some LED retrofit lamps Design Lights Consortium (DLC): <a href="https://www.designlights.org/QPL">www.designlights.org/QPL</a>
  - QPL for LED recessed canister downlights & other (Certified Light Fixtures) ENERGY STAR®: www.energystar.gov/productfinder/product/certified-light-fixtures/
  - QPL for LED lamps (Certified Light Bulbs)

     ENERGY STAR®: www.energystar.gov/productfinder/product/certified-light-bulbs/
- Certain products with additional sizes or attributes outside of the QPL categories or specifications above may also qualify;
   Contact the program with questions.
- References to "Lighting Tool" below means Energy Trust's Business Lighting Tool.

The following requirements apply to lighting projects:

- Energy Trust may require access to perform an on-site review of any project seeking Energy Trust incentives at any point
  during the project cycle in order to verify incentive eligibility. On-site reviews may be performed virtually at the request of the
  Participant or Energy Trust.
- Ballasts and drivers must be compatible with proposed lamps.
- Existing equipment must be removed and properly disposed of not reused or sold for use elsewhere. Participants and their trade allies are responsible for the proper disposal/recycling of lamps and ballasts and must appropriately document such disposal as required by applicable law.
- Qualifying products in lighting measure installations must be new; used equipment is not eligible for Energy Trust incentives.
- Lighting measures may be reviewed in relation to Illuminating Engineering Society (IES) recommendations for minimum light
  levels and appropriate ratios for the space type and functions. If light levels appear to meet minimum IES recommendations
  and the specified lighting wattages exceed the measure specifications listed below, then any decision as to whether a
  specified measure qualifies for prescriptive or custom incentives rests solely with Energy Trust.
- Lighting measure installations that do not meet industry standards or other Energy Trust program requirements, as determined solely by Energy Trust, will not qualify for incentives. Final determination of eligibility for Energy Trust incentives rests with Energy Trust.



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The following requirements apply to lighting control projects:

- Incentives for qualifying stand-alone prescriptive lighting controls measures (Section 6) will be calculated at a maximum of 100% of total eligible measure costs. Lighting measures with integrated LLLC or occupancy controls will be calculated at a maximum of 70% of the total eligible fixture and control measure costs combined. All remaining prescriptive measures will be calculated at a maximum of 50% of total eligible measure costs.
- LLLCs (Luminaire Level Lighting Controls) networked light fixtures with integrated occupancy sensors and daylight sensors/photocells.
- High-End Trim:
  - High-end trim refers to a maximum set point for fixture light output as a percentage of the total possible output. For example, a high-end trim of 80% means that the fixture is dimmed by 20% or is operating at 80% of the fixture's total potential output.
  - High-end trim reduces the maximum light output of a fixture to be able to tune light levels to meet design specifications and customer preferences. It also can extend the useable life of a fixture by reducing high-end trim to maintain light levels over time as light output degrades.
  - A high-end trim of 80% is recommended for most applications.
- Task tuning:
  - Task tuning provides the ability to adjust light levels for preference and use.
  - Tuning is controlled through wireless remotes and wall switches.
  - Typical presets include full-on and off settings, dimmed output, and audiovisual. In addition, flexible spaces that serve
    many different purposes benefit from more tuning options and range to provide proper light levels for each function.
  - Color tuning can also be included to create more dynamic lighting and spaces.
- Daylighting: Recommended where floor area is substantially illuminated by daylight (see ASHRAE 90.1-2019 for more guidance on what constitutes a daylight area)
- Occupant sensing: Recommended lighting shut off after 10 mins. of a space being unoccupied. If shutting off lights endangers safety or security, lights must be dimmed to the lowest safe level in unoccupied mode.

Manual On encouraged where it does not endanger safety or security.

- For more information on specific lighting projects and measures:
- Incentives for qualifying TLEDs and HID to LED screw-in retrofit lamp measures are available for K-12 Public Schools and Government/Public Facility installations ONLY. Please contact the program to discuss eligibility requirements for these incentives. See *Pl190PS: Public Sector Lighting* for additional information.
- Industrial horticultural grow operation project applicants must contact the program for detailed program requirements and eligibility review. See *Pl490HL: Horticultural Lighting Incentives* for additional information.
- Fixtures used for public roadways, including street lighting, may be eligible for incentives. Please contact the program with questions. See *Pl190SL: Street Lighting Incentives* for additional information.



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#### Section 1

#### **Custom Lighting Controls and Lighting Upgrades**

If you are considering a lighting retrofit or upgrade project and do not see your equipment listed on this information sheet identifying available prescriptive incentives in Sections 2 through 7, contact the program to discuss whether your project (including lighting controls) may qualify for custom incentives from Energy Trust. To be eligible for custom incentives, proposed custom lighting measures must be reviewed and pre-qualified in advance by Energy Trust and must also pass a custom cost-effectiveness analysis.

- The maximum incentives provided by Energy Trust for any qualifying custom lighting measure are listed in this **Section 1** and will not exceed 50% of total eligible measure cost or Energy Trust's established maximum incentive caps for projects.
- Incentives for qualifying custom lighting controls measures will be calculated at a maximum of 50% total eligible measure cost not to exceed 20¢/annual kWh saved.
- Incentives for qualifying custom lighting measures used for industrial horticultural grow operations will be calculated at a maximum of 50% total eligible measure cost not to exceed 20¢/annual kWh saved.
- All qualifying lighting and lighting controls measures used for industrial horticultural grow operationswill be calculated using the custom incentive application, as required by Energy Trust.
- Incentives for all other qualifying custom lighting measures will be calculated at a maximum of 50% of total eligible measure costs not to exceed 20¢/annual kWh saved.
- Custom incentives are available when the equipment quantity is reduced by 20% or more.
- Custom control incentives are available when an existing exterior fixture is on 24-hours with no existing photocell or expired photocell. The addition of a photocell control can receive a custom control incentive.
- Custom incentives are not available for certain proposed technologies such as manual controls, TLED, linear fluorescent, compact fluorescent (CFL), CFL to LED retrofit lamps, HID to LED retrofit lamps, mercury vapor (MV), incandescent, fluorescent induction, high pressure sodium (HPS), metal halide (MH), or photocell (exterior) sensors, unless specifically noted otherwise.



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Section 2 LED Lamps replacin	LED Lamps replacing pin/screw-in incandescent or pin/screw-in CFL, unless noted.					
Example application: Replace incandescent candelabra on a decorative fixture with a 3 watt or less LED screw in bulb						
Measure Description	Incentive		Form 103L Analysis Drop Down Selections			
Decorative LED Screw-In 3 Watts or Less	\$5	per proposed lamp	LED_Lamps	Decorative LED Screw-In Lamp 3W or less		
Pin-CFL to pin base LED	\$3	per proposed lamp	LED_Lamps	CFL to pin base LED		

- When installing pin base LEDs, Business Lighting trade ally should enter manufacturer stated system wattage, if available, in the proposed lamp wattage section in the Lighting Tool. If system wattage is not reasonable to obtain, manufacturer stated lamp wattage is acceptable (otherwise DLC QPL wattage will be used).
- 40% minimum wattage savings per Lighting Tool measure line required.
- Measures that do not meet the 40% wattage reduction savings may still be eligible for custom incentives.



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Section 3

Interior LED Fixtures with and without luminaire level lighting controls (LLLCs) Retrofit-kits and new fixture options, ballasts & lamp sockets removed

Example application: T12 four-lamp recessed troffer to high performance LED retrofit kit.

Measure Description	Incentive for fixtures only	Incentive for fixtures with LLLC controls	Form 103L Analysis Drop Down Selections	
LED fixture or kit, 25W or less	\$30	\$60	LED_Interior_Fixtures  LLLC	LED fixture or kit, 25W or less  LED fixture or kit, 25W or less
LED fixture or kit, 26-39W	\$45	\$90	LED Interior Fixtures  LLLC	LED Fixture or kit, 26-39W  LED fixture or kit, 26-39W
LED fixture or kit, 40-57W	\$50	\$95	LED_Interior_Fixtures  LLLC	LED fixture or kit, 40-57W  LED fixture or kit, 40-57W
LED fixture or kit, 58-100W	\$55	\$100	LED_Interior_Fixtures	LED fixture or kit, 58-100W  LED fixture or kit, 58-100W

- Each incentive in Section 3 is per proposed fixture.
- 40% minimum wattage savings per Lighting Tool measure line required.
- Measures that do not meet the 40% wattage reduction savings may still be eligible for custom incentives.
- Existing single-lamp fluorescent fixture applications must use custom incentive calculation as described in Section 1 "Custom Incentives."
- Fixtures using TLEDs are not eligible for incentives in this section.
- LED fixtures >100W, excluding high-bay and low-bay, can apply under Section 1. For high-bay and low-bay LED fixtures, refer to Section 4.
- Unique architectural fixtures such as chandeliers or decorative art fixtures can apply under Section 1.
- For industrial process and horticultural lighting incentives, refer to form PI490HL.
- Luminaire Level Lighting Control (LLLC) systems must meet the DLC Networked Lighting Control System Technical Requirements NLCv5.0.
  - LLLC luminaires or kits require a networked occupancy sensor and ambient light sensor directly integrated or embedded into the luminaire or kit during the manufacturing process
  - LLLC systems are recommended to be programed as follows:
    - o Task Tuning control via a remote or wall switch.
    - High End Trim recommended at 80% or lower.
    - Daylighting: Recommended where floor area is substantially illuminated by daylight (see ASHRAE 90.1-2019 for more guidance on what constitutes a daylight area)
    - Occupant sensing: Recommended to shut off lights after 10 mins. of a space being unoccupied. If shutting off lights endangers safety or security, lights must be dimmed to the lowest safe level in unoccupied mode.
      - Manual On encouraged where it does not endanger safety or security.



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Section 4 High-Bay / Low-Bay fixtures and non-screw-in retrofit kits with and without luminaire level

Example application: Replace 400W MH high-bay fixture with a 150W LED high-bay fixture

lighting controls (LLLCs)

Measure Description	Incentive for fixtures only	Incentive for fixtures with LLLC controls	Form 103L Analysis Drop Down Selections	
LED High-Bay or Low-Bay, 40-90W	\$120	\$175	LED_High_Bay	LED High-Bay or Low-Bay, 40-90W
			LLLC	LED High-Bay or Low-Bay, 40-90W
LED High-Bay or Low-Bay, 91-140W	\$180	\$235	LED_High_Bay	LED High-Bay or Low-Bay, 91-140W
			LLLC	LED High-Bay or Low-Bay, 91-140W
LED High-Bay or Low-Bay, 141-299W	\$210	\$265	LED_High_Bay	LED High-Bay or Low-Bay, 141-299W
			LLLC	LED High-Bay or Low-Bay, 141-299W
LED High-Bay or Low-Bay, 300W or greater	\$300	\$355	LED_High_Bay	LED High-Bay or Low-Bay, 300W or greater
			LLLC	LED High-Bay or Low-Bay, 300W or greater

- Each incentive in Section 4 is per proposed fixture.
- 40% minimum wattage savings per Lighting Tool measure line required.
- Measures that do not meet the 40% wattage reduction savings may still be eligible for custom incentives.
- Proposed fixtures must be QPL listed in the High-Bay category.
- Projects using TLEDs or HID to LED screw-in lamps do not qualify for incentives in this section.
- Luminaire Level Lighting Control (LLLC) systems must meet the DLC Networked Lighting Control System Technical Requirements NLCv5.0.
  - LLLC luminaires or kits require a networked occupancy sensor and ambient light sensor directly integrated or embedded into the luminaire or kit during the manufacturing process
    - o LLLC systems are recommended include and be programed as follows:
      - Task Tuning control via a remote or wall switch.
      - High End Trim recommended at 80% or lower.
      - Daylighting: Recommended where floor area is substantially illuminated by daylight (see ASHRAE 90.1-2019 for more guidance on what constitutes a daylight area)
      - Occupant sensing: Recommended to shut off lights after 10 mins. of a space being unoccupied. If shutting off
        lights endangers safety or security, lights must be dimmed to the lowest safe level in unoccupied mode.
        - Manual On encouraged where it does not endanger safety or security.



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Section 5

Exterior Pole/Arm-mounted Area Luminaires, Exterior Wall-mounted Area Luminaires, Parking Garage Luminaires, Fuel Pump Canopy, Exterior Downlights, and Architectural Flood/Spot Lighting with and without luminaire level lighting controls (LLLCs)

Non-screw in only

Example application: Replace 70 watt HID wall pack with 30 watt LED wall pack

Measure Description	Incentive for fixtures only	Incentives for fixtures with LLLC controls	Form 103L Analysis Drop Down Selections	
Exterior Recessed Canister Downlight LED kit or new LED fixture replacing CFL, HID, or incandescent 150W or greater	\$20	NA	LED_Exterior_Fixtures	Exterior Recessed Canister Downlight LED
Exterior LED fixture, 20W or less	<b>#</b> 40	\$65	LED_Exterior_Fixtures	Exterior LED fixture, 20W or less
	\$40		LLLC	Exterior LED fixture, 20W or less
Exterior LED fixture, 21-40W	<b>#</b> 00	\$105	LED_Exterior_Fixtures	Exterior LED fixture, 21-40W
	\$60		LLLC	Exterior LED fixture, 21-40W
Exterior LED fixture, 41-90W	\$120	\$180	LED_Exterior_Fixtures	Exterior LED fixture, 41-90W
			LLLC	Exterior LED fixture, 41-90W
Exterior LED fixture, 91-140W	\$180	\$245	LED_Exterior_Fixtures	Exterior LED fixture, 91-140W
			LLLC	Exterior LED fixture, 91-140W
Exterior LED fixture, 141-299W	\$220	\$295	LED_Exterior_Fixtures	Exterior LED fixture, 141-299W
			LLLC	Exterior LED fixture, 141-299W
Exterior LED fixture, 300W or greater	\$325	\$425	LED_Exterior_Fixtures	Exterior LED fixture, 300W or greater
			LLLC	Exterior LED fixture, 300W or greater

- Each incentive in Section 5 is per proposed fixture.
- 40% minimum wattage savings per Lighting Tool measure line required.
- Measures that do not meet the 40% wattage reduction savings may still be eligible for custom incentives.
- Fixtures using TLEDs are not eligible for incentives in this section.
- Luminaire Level Lighting Control (LLLC) systems must meet the DLC Networked Lighting Control System Technical Requirements NLCv5.0.
- LLLC luminaires or kits require a networked occupancy sensor and ambient light sensor directly integrated or embedded into the luminaire or kit during the manufacturing process.



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Section 6 Lighting Controls: Custom control or system Example application: Integral warehouse aisle occupancy sensor mounted on T5, LED, or T8 High Bay fixture **Measure Description** Incentive Form 103L Controls Tabs Drop Down Selections Custom lighting controls or systems not listed Custom control or system in this Section 6 below, or in the Sections 3 See Section 1 "Custom through 5 LLLC descriptions above, can be Incentives" Hard-Wired Occupancy Sensor, submitted for review as a proposed custom ceiling/corner/surface mount, 100W or greater measure Interior Vacancy Sensor (manual-on version) per Wall Switch Vacancy Sensor, 30W or greater \$30 proposed sensor Control loads 30W or greater Interior Occupancy Sensor Wall Switch Occupancy Sensor, per (automatic-on version) \$30 proposed 30W or greater Wall switch sensor Control loads 30W or greater Interior Occupancy Sensor Occupancy Sensor, fixture mount, per 30W or greater Fixture mount \$50 proposed sensor Control loads 30W or greater Interior Wireless Occupancy Sensor Wireless Occupancy Sensor, ceiling/corner/surface per Ceiling, corner, or surface (including wall) mount, 100W or greater \$60 proposed mount sensor Control loads 100W or greater Interior Hard-Wired Occupancy Sensor ner Hard-Wired Occupancy Sensor, Ceiling, corner, or surface (including wall) proposed \$60 ceiling/corner/surface mount, 100W or greater sensor mount Control loads 100W or greater **Exterior Occupancy Sensor** Fixture or pole mounted (wired or wireless) Exterior Occupancy Sensor, fixture or pole mount, per Control loads 40W and greater 40W or greater \$30 proposed Proposed fixture wattage reduction 50% or sensor greater in unoccupied mode using dimming, step, bi-level, or on/off functionality. ner On LED cases, side bar (single) or mullion bar Motion Sensor on existing LED, per linear foot of proposed (double) LED fixture \$2.50 linear ft of Reach-in or open display cases 1

fixture



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• Wireless occupancy sensors mounted separately from the fixture and typically installed on/in the ceiling/corner/surface location and may control multiple lighting fixtures are eligible. Wireless is defined as a device whose "control signal" is not transmitted over a wire to and from the sensor and fixture(s); power can be battery/self-powered or over a wire, fixtures can have wired

Manual wall switch (on/off), manual dimmers, simple timeclock controls, simple exterior photocell sensors, and existing controls
are not eligible.

The following control types are not included as prescriptive measures. These may be suited to custom projects. (see Section 1).

- Advanced lighting controls such as daylight dimming, Direct digital controls (DDC)/Energy Management Systems (EMS), non-integrated NLCs or LLLC measures not controlling eligible Interior, High-Bay/Low-Bay and Exterior fixtures.
- Controls on lighting fixtures that do not meet wattage thresholds.
- <sup>1</sup> Motion Sensors LED Case Lighting Requirements:
  - Incentives are based on linear feet of LED fixture controlled by the motion sensor
  - Install a motion sensor controlling permanently installed LED lighting in refrigerated reach-in case(s)
  - Incentive and energy savings values vary based on the controlled LED luminaire power (low or high):
    - Low power luminaire is defined as one that uses <= 3.5W/ft of fixture (single)</li>
    - High power luminaire is defined as one using > 3.5W to < 8.5W/ft of fixture (double)</li>

Lighting@energytrust.org 1.800.326.2917



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**LED Cooler/Freezer Lighting** Section 7 LED fixtures must be listed as case lighting, on the  $\underline{\text{DLC}}$  product list **Measure Description** Incentive Form 103L Analysis Drop Down Selections Replace T8 or T12 with LED side bar (single) per proposed Linear, per linear foot of LED \$9 LED Refrigerated Case linear ft of Inside reach-in or open display fixtures fixture cases2 or on the canopy or lip of open display cases 1 Replace T8 or T12 with LED mullion (double) per proposed LED Refrigerated Case Linear, per linear foot of LED \$17 linear ft of Inside reach-in or open display fixtures fixture cases2 or on the canopy or lip of open display cases 1

- Incentives paid are based on linear feet of installed LED fixture.
- Only LED fixtures on the Design Lights Consortium product list for case lighting, under indoor luminaires, are eligible.
- Install must be inside the refrigerated zone (the lights inside or on the case shelf in open cases, similarly, lights in the space
  contained inside the doors/glass casing of the reach-in case) or outside the refrigerated zone (on the canopy or the lip of
  the case; this does not apply to reach-in cases).
- Incentive and energy savings values vary based on the controlled LED luminaire power (low or high):
- Low power luminaire is defined as one that uses <= 3.5W/ft of fixture (single)</li>
- High power luminaire is defined as one using > 3.5W to < 8.5W/ft of fixture (double)

<sup>&</sup>lt;sup>1</sup> LED Case Lighting Requirements: