

Construction Contracts
Administration, Procurement
Contracts & Materials
Management (PCMM)
Oregon State University
644 SW 13th Ave.
Corvallis, Oregon 97333

P 541-737-4261 **F** 541-737-5546 oregonstate.edu

8/3/2018

Oregon State University Construction Contract Administration Food Innovation Center Lighting Replacement

ADDENDUM NO. 3

<u>THIS ADDENDUM IS BEING ISSUED</u> for clarification and/or revisions of the drawings and specifications as noted. This document is hereby made a part of the Contract Documents to the extent as though it was originally included herein.

The following changes shall be made:

- Item 1 Deadline for Questions is hereby extended to **Friday August 10, 2018**, 5:00PM local time.
- Item 2 BID FORM REPLACE in its entirety with the attached ***REVISED 08/03/2018. Note the Bid Close Date is extended to **Thursday August 23, 2018 at 2:00PM**.
- Item 3 NOTICE OF OPPORTUNITY REPLACE in its entirety with the attached ***REVISED 08/03/2018
- Item 4 Division 1 Section 01 77 00 Contract Closeout REPLACE in its entirety with the attached *** REVISED 08/03/2018.

ADDITIONAL OTHER DOCUMENTS:

Item 5 Added Energy Trust of Oregon Lighting Tool, for determining cost incentive. Attached herein as Exhibit B.

ADDITIONAL REFERENCE DOCUMENTS:

- Item 6 Added Energy Trust of Oregon Commercial & Industrial Lighting Incentives FOR REFERENCE ONLY.
- Item 7 Added Energy Trust of Oregon Program Information 172L: Lighting Incentive Process FOR REFERENCE ONLY.

END OF ADDENDUM NO. 3

PROJECT MANUAL TABLE OF CONTENTS

Notice of Opportunity (Revised 08/03/2018)	
Agreement	
Instructions to Bidders	
Supplemental Instructions to Bidders	
Bid Form (Revised 08/03/2018)	
General Conditions	
Supplemental General Conditions	
OSU MWESB Form Instructions	
OSU MWESB Form	
BOLI Prevailing Wage Rate Notification	
TECHNICAL SPECIFICATIONS	
<u>Division 01</u>	
Division 01 prepared by OSU Construction Contracts Department, dated July 2018	
Summary of Work	Section 01 11 00
Application for Payment	Section 01 24 76
Sample Contract Payment Request Form	
Continuation Sheet	
Product Substitution Procedures	Section 01 25 00
Sample Substitution Request Form	
Project Meetings	Section 01 31 19
Shop Drawings, Product Data, Samples	Section 01 33 23
Abbreviations and Symbols	Section 01 42 13
Definitions Section 01 42 16	
Reference Standards	Section 01 42 19
Quality Control	Section 01 45 00
Construction Facilities & Temporary Controls	Section 01 51 00
Construction and Maintenance Safety Requirements	
Construction and Maintenance Safety Form	
Construction and Maintenance Isolation Requirements	
Model Site Safety Plan	
Tree and Plant Protection	Section 01 56 39
Product Requirements	Section 01 60 00
Cutting and Patching	Section 01 73 29
Cleaning	Section 01 74 00

Section 01 77 00

Exhibit A

Contract Closeout (Revised 08/03/2018)

Existing Equipment List

FOR REFERENCE ONLY

Program Information 172 Lighting Incentive Process

Oregon Commercial & Industrial Lighting Incentives 190L

OREGON STATE UNIVERSITY

NOTICE OF CONTRACT OPPORTUNITY

THIS OPPORTUNITY IS ONLY AVAILABLE TO CONTRACTORS WITH A CURRENT OREGON STATE SYSTEM (OSU) RETAINER CONTRACT FOR CONSTRUCTION RELATED SERVICES.

FOOD INNNOVATION CENTER LIGHTING REPLACEMENT

Oregon State University ("Owner") is accepting sealed bids for a public improvement project at Construction Contract Administration, Oregon State University, 644 SW 13th Ave., Corvallis, Oregon, until **Thursday August 23, 2018 at 2:00 PM** local time, for the Food Innovation Center Lighting Replacement project located on the campus of Oregon State University, Corvallis, Oregon. The project includes the complete LED retrofit of building lighting systems at the Food Innovation Center in Portland Oregon. Work shall include all the labor, materials and all related fees for the lighting retrofit as described in the project specifications.

A mandatory examination of the site and conditions will be made on **Friday July 27, 2018 at 11:00 AM**. Bidders shall meet with the Owner's Representative in the classroom at the Food Innovation Center located at 1207 NW Naito Pkwy Portland, OR 97209. Attendance will be documented through a sign-in sheet prepared by the Owner's Authorized Representative. Prime bidders/proposers who arrive more than 5 minutes after start time of the meeting (as stated in the solicitation and by the Owner's Authorized Representative's watch) or after the discussion portion of the meeting (whichever comes first) shall not be permitted to sign in and will not be permitted to submit a bid on the project.

Bids will be opened and publicly read aloud on **Thursday August 23, 2018 at 2:00 PM**, at Construction Contract Administration, Oregon State University, 644 SW 13th Ave., Corvallis, Oregon by the Owner's representative or designee.

Bids will be received on a lump-sum basis for all of the work. The lump-sum bid is comprised of Basic Bid C, which is a combination of Basic Bid A, and Basic Bid B. Bid packets, plans and specifications shall be available for viewing and downloading at the OSU Online Planroom website, www.osuplanroom.com.

All bidders must comply with requirements of the prevailing wage law in ORS 279C.800 through ORS 279C.870. All bidders must be registered with the Construction Contractor's Board at the time of bid submission. No bid will be considered unless fully completed in the manner provided in the "Instructions to Bidders" upon the Bid Form provided and accompanied by Bid Security. OSU encourages bids from Minority, Women, and Emerging Small Businesses.

OREGON STATE UNIVERSITY

By: BY: Kelly Oar Purchasing Analyst III Oregon State University

OREGON STATE UNIVERSITY

BID FORM

PROJE	ECT:	FOOD INNOV	ATION CENTER LIGHTING REPLACEN	<u>MENT</u>
BID CI	LOSING:	THURSDAY A	.UGUST 23, 2018 2:00PM	
BID O	PENING:	THURSDAY A	<u>UGUST 23, 2018 2:00PM</u>	
FROM	: Name of Co	ntractor		
TO:				
1.	The Undersi	gned (check one of t	he following and insert information request	ed):
			iness under an assumed name registered ate of;	or
	_		under the laws of the State of; or	
			under the laws of the; or	
	d. A lin	mited liability corpor	ration/company organized under the laws;	
			naterial and labor and perform all work here e with the Contract Documents for the Basic	
	BASIC BID	A (Total cost to furn	nish and install all lighting listed on Exhibit	A):
			Dollars (\$)
		gy Trust of Oregon I	y Trust Incentive cost from Analysis 103L v Lighting Tool Version 2018 indicating proper	· · · · · · · · · · · · · · · · · · ·
			Dollars (\$)
	BASIC BID	C (Combination of	Basic Bids A and B):	
			Dollars (\$)
	and the Unde	ersigned agrees to be	e bound by the following documents:	
	• Notice of C	Opportunity	• Instructions to Bidders	

FOOD INNOVATION CENTER LIGHTING REPLACEMENT BID FORM REVISED AUGUST 3, 2018 PAGE 2

 Supplemental Instructions to Bidders Performance Bond and Payment Bond Supplemental OSU General Conditions 	Sample Retainer Contract SupplementOSU General Conditions
 Prevailing Wage Rates Plans and Specifications ADDENDA numbered through, incl 	 Payroll and Certified Statement Form Drawings and Details Payroll and Certified Statement Form Drawings and Details Payroll and Certified Statement Form Drawings and Details
•	ulated and specified in Division 1, Section 01 11 00,
3. The Undersigned certifies that: (1) This Bid has be without collusion with and without any agreement, under any other vendor of materials, supplies, equipment or second imit independent bidding or competition; and (2) The collection has been been undersigned or its employees or agents to any person surety on any Bond furnished with the Bid and will not be opening of the Bid.	rvices described in the invitation to bid designed to ontents of the Bid have not been communicated by not an employee or agent of the Undersigned or its
4. The undersigned HAS, HAS NOT (<i>circle applie</i> Oregon within the past 12 months and HAS, HAS NO Oregon	cable status) paid unemployment or income taxes in OT (circle applicable status) a business address in
5. The Undersigned agrees, if awarded a contract, hrough 279C.870 pertaining to the payment of the preva	to comply with the provisions of ORS 279C.800 iling rates of wage.
6. Contractor's CCB registration number issubmitting a bid, a Contractor must be registered wit accordance with ORS 701.035 to 701.055, and disclose disclose the number will render the bid unresponsive and	e the registration number. Failure to register and
7. The successful Bidder hereby certifies that all sudescribed in ORS 701.005(2) were registered with the ORS 701.035 to 701.055 at the time the subcontractor(s)	
B. The successful Bidder hereby certifies that, in content of Oregon, its Worker's Compensation Insurance Policy No, and that Contractor shall	
Office Phone: Cell Phone	e:
10. The Undersigned certifies that it has not discrime businesses in obtaining any subcontracts for this project.	inated against minority, women, or emerging small
11. The Undersigned agrees, if awarded the Contract (20) calendar days after receiving the Contract Doc Performance Bond and Payment Bond, each in an amoun sum, using forms provided by the Owner. The surety reg Bond will be:	t equal to one hundred (100) percent of the Contract
(name of surety company - not i	nsurance agency)

The Undersigned hereby authorizes said surety company to disclose any information to the Owner concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the

FOOD INNOVATION CENTER LIGHTING REPLACEMENT BID FORM REVISED AUGUST 3, 2018 PAGE 3

Contract.		
By signature below, Cont	tractor agrees to be bound by th	is Bid.
	NAME OF FIRM	
	ADDRESS	
	FEDERAL TAX ID	
	TELEPHONE NO	
	FAX NO	
	SIGNATURE 1)	
		Sole Individual - Signature
		Sole Individual - Printed Name
	or 2)	Partner
	or 3)	
	01 3)	Authorized Officer of Corporation - Signature
(SEAL)		Authorized Officer of Corporation Printed Name
,		Attested: Secretary of Corporation

Payment information will be reported to the IRS under the name and taxpayer ID # provided above. Information not matching IRS records could subject Contractor to 31 percent backup withholding.

***** END OF BID *****

SECTION 01 77 00

CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 DESCRIPTION

- A. The requirements specified in this section relate to all Contractors individually performing under these Contract Documents:
 - 1. Project Record Documents.
 - 2. Final review and payment.
- B. Related work specified elsewhere:
 - 1. OSU General Conditions.
 - 2. Shop Drawings, Product Data and Samples, Section 01 33 23.

1.02 PROJECT RECORD DOCUMENTS

- A. The Project Record Documents shall be organized to include the following information:
 - 1. Table of Contents
 - 2. Project Team List
 - 3. Specifications (Including Addenda and Change Orders)
 - 4. Drawings
 - 5. Inspection Reports, as applicable
 - 6. Signed Warranty(ies)
 - 7. Final ETO incentive worksheet and other related documentation
 - 8. Maintenance Instructions
- B. One (1) set of the Project Record Documents shall be submitted for review upon 75% completion of the Work.
- C. Project Record Documents shall be submitted electronically to the Owner. Hard copies will not be accepted.
- D. The project team list shall include the name, address, and phone number of the Owner, Contractor, Inspector, Subcontractors, and the materials manufacturers.
- E. Legibly mark each Specification section to indicate actual as-built condition indicating changes in the Work made by addenda or change order or actual materials used and actual manufacturer(s) used.
- F. Maintain current and accurate as-built mark-ups during construction and make available to Owner's Authorized Representative upon request.
- G. Legibly mark the drawings to indicate actual as-built conditions indicating changes in the Work made by addenda or change order or actual conditions which differ from the drawings.
- H. Redraw or provide new drawings as required for a complete as-built set of drawings. The Contractor shall maintain current and accurate as-built mark-ups

- during construction and make available to Owner's Authorized Representative.
- I. Include inspection reports if applicable.
- J. Include, in a single section, all copies of the Project's labor and material warranties clearly marked to identify the Owner's responsibilities under the terms of each warranty and the section of Work that each warranty covers. One set must be clearly marked as containing original documents.
- K. In the case of an elevator installation, the Contractor's and manufacturer's warranty shall provide for the Owner's right to respond to emergency/car failure situations for the purpose of extricating individuals trapped in the elevator.
- L. Include maintenance instructions complete with technical information and name, address, and phone number of the Contractor(s) and manufacturer(s) of each material and product.

1.03 FINAL REVIEW AND PAYMENT

- A. Prior to completion, the Contractor shall inspect the Work and make a Punch-list noting all items that are incomplete and/or incorrect.
- B. The Contractor shall notify all Subcontractors in writing of incomplete and/or incorrect items. Notify far enough in advance of the completion date that the Work can be completed on schedule. Said Work shall be immediately corrected.
- C. Should conditions prevail which prohibit some elements of the Work from being accomplished, but the work-in-place will perform the primary function (i.e., painting cannot be completed due to high moisture content of masonry walls.) the Contractor shall record the reason with this Punch-list item requesting temporary delay in completion from the Owner in writing.
- D. Notify the Owner in writing that all items are completed and ready for final review or else that the Work product is fully usable, but some listed deficiencies remain to be completed. Submit all record documents at this time.
- E. The Owner will review all documents. When the documents include a Contractor's request for delay in completion, the Owner will review all Work which is certified as complete to the best knowledge of the Contractor. The Owner will also review the listed incomplete Work and assign a value to such uncompleted work.
- F. The Contractor shall make the required corrections to the Work expeditiously. A letter will be addressed to the Contractor informing the Contractor of the project status.
- G. When Contract closeout procedures are completed and all Punch-list deficiencies have been corrected, provide Owner with final corrected Project Record Documents based on Owner's preliminary review. Correct Project Record Documents shall be in electronic format.

- H. Final Completion by the Owner will be documented and the Contractor will receive written notice of acceptance of the Work and notification that final payment may be billed and released.
- I. All warranties shall commence and become effective beginning on the date of Substantial Completion.

END OF SECTION



FOR REFERENCE ONLY

ALL LIGHTING PROJECTS MUST BE PRE APPROVED WITH <u>FORM 120L – INCENTIVE OFFER</u> SIGNED PRIOR TO ORDERING MATERIAL

- STEP 1: Find a contractor or a supplier for product selections and pricing to help with the lighting tool application and work with you through all the steps listed below.
 - If you are a new trade ally or a participant that requires a copy of the Excel lighting tool, please contact: Mariah Schrotzberger 503-939-9383 mariah.schrotzberger@evergreen-efficiency.com
- STEP 2: From the Excel lighting tool, fill out Form 100L Information and the Analysis 103L (in the Excel lighting tool)
 - A copy of the participant's electric bill is requested to determine eligibility for project incentives.
 - Participant may email completed Excel lighting tool that includes these forms to the lighting email listed below, or Mariah Schrotzberger (listed below). Mariah can also connect you with a Lighting Specialists for additional help.
- **STEP 3: PRE and POST SITE** verifications *may* be initiated by the project coordinator for *any* lighting project, but are <u>REQUIRED</u> for projects exceeding a \$6,000 incentive total.
 - When the PRE-site verification is completed by an Energy Trust Lighting Specialist, or if the
 project did not require a site-verification, the lighting Project Coordinator will review the
 Analysis 103L to confirm projected energy savings and estimated incentive total.
- STEP 4: Sign and Return Form 120L Incentive Offer, which will be sent to the participant once Analysis
 103L and/or site-verification have been completed and approved.
 - This reserves incentives for the proposed project <u>and serves as your authorization to</u> proceed with ordering material for the project.*
 - Fill out and include <u>Energy Trust Substitute W-9 form when you send the Form 120L</u>
 Incentive Offer.
- **STEP 5:** Send your invoices within 30 days of project completion to <u>documents@evergreen-efficiency.com</u> to reconcile the final incentive or schedule a POST site-verification, if required.
 - <u>Project labor and material invoices</u> are required prior to scheduling a POST siteverification and for finalizing all projects.
- STEP 6: Sign and Return Form 140L Completion Certification, which will be sent to the Participant when the project is fully complete.
 - Participant should receive Energy Trust incentive check within 45 days <u>after</u> project materials are reviewed, approved, and submitted for payment.

For Multifamily project information:

Brian Morrison Energy / Lighting Specialists (360) 798-3083 brian.morrison@evergreen -efficiency.com For self-installs not working with an Energy Trust trade ally, or if you are a new ally to the program and need help getting started, contact: Mariah Schrotzberger 503-939-9383 mariah.schrotzberger@evergreen -efficiency.com

Please send completed lighting tools for new SOLD projects to: lighting@evergreen-efficiency.com

^{*} Form 120L – Incentive Offer <u>must</u> be signed by the Participant and returned to lighting Project Coordinator BEFORE materials are ordered.

Existing Buildings, Production Efficiency and Multifamily Buildings



Incentives for Energy Efficient Lighting (Effective February 1, 2018)

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 us using the information located at the bottom of the page.

To apply for lighting incentives, projects must (1) be submitted to Energy Trust 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.

It is important that you contact us 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 www.energytrust.org.

Lighting Project Specifications & Requirements

The following lists provide technical specifications for certain lighting products. Not all products listed qualify for Energy Trust incentives. To qualify for incentives, products and measure installations must also pass Energy Trust cost-effectiveness criteria and meet other program requirements. Contact us 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): http://www.designlights.org/QPL
 - QPL for LED recessed canister downlights & other (Certified Light Fixtures) ENERGY STAR®: http://www.energystar.gov/productfinder/product/certified-light-fixtures/
 - QPL for LED lamps (Certified Light Bulbs)

 ENERGY STAR®:
 http://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 us with questions.

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.
- Ballasts and drivers must be compatible with proposed lamps.
- Lighting measures are reviewed in relation to Illuminating Engineering Society (IES) recommendations for minimum light levels and appropriate ratios for the customer's 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.
- TLED:
 - Trade ally (or installer) must verify the conditions of existing lamp sockets and replace damaged, corroded, and/or cracked lamp sockets.
 - External Driver TLED (TYPE C) versions: labeling is recommended to indicate the fixture has been retrofitted with a TLED
 and fluorescent lamps should not be installed as replacements.
 - Internal Driver TLED (TYPE A, B, and A/B) versions: label must be affixed in a prominent location on the interior of the fixture in compliance with UL requirements. The label must indicate the fixture has been retrofitted with TLED and fluorescent lamps should not be installed as replacements.
- 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.
- The maximum incentive provided by Energy Trust for any prescriptive measure will never exceed 50% of total eligible measure
 cost.

Existing Buildings, Production Efficiency and Multifamily Buildings



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, contact us 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. Contact the program for more information.

- The maximum incentive provided by Energy Trust for any custom lighting measure will never exceed 25¢ per kWh saved or 50% of total eligible measure cost.
- 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, incandescent, fluorescent induction, high pressure sodium (HPS), or metal halide (MH).
- All lighting and lighting controls used for horticulture are required to use the custom lighting calculation. Linear fluorescent
 and TLED used for horticulture are eligible for custom incentives.

Section 2

LED Lamps replacing screw-in incandescent only unless noted.

Example application: Replace incandescent track head PAR lamp with screw-base LED replacement PAR lamp

Measure Description	Incentive		103L Analysis Drop Down Selections		
LED lamp with integral driver, less than 20 watts (PAR/R/MR)	\$ 8	per lamp	LED_Lamps	LED lamp <20W (PAR/R/MR)	
LED lamp with integral driver 20-40 watts (PAR/R/MR)	\$ 13	per lamp	LED_Lamps	LED lamp 20-40W (PAR/R/MR)	
LED candelabra or globe, greater than 2 watts	\$ 4	per lamp	LED_Lamps LED_Lamps	LED small screw-base candelabra lamp LED globe screw-in lamp	
LED A-Lamp	\$ 4	per lamp	LED_Lamps	LED A-Lamp	
CFL to pin base LED operating with existing ballast or removing ballast and 40% minimum savings per lamp	\$ 2	per lamp	LED_Lamps	CFL to pin base LED	

Specialty/decorative LED lamps < 2 watts are exempt from the QPL requirement and will be reviewed on a case-by-case
basis as a custom lighting measure (see Section 1). A minimum warranty of 3 years is required.

Existing Buildings, Production Efficiency and Multifamily Buildings Program Information 190



HID to LED screw-in retrofit lamps

Section 3

- Omni-directional, directional, and high-bay screw-in lamps to retrofit existing HID
- Lamps using HID ballasts are not eligible for incentives. Ballasts must be removed.

Example application: 250-watt metal halide high-bay fixture converted to 100-watt screw-in LED lamp with old ballast removed and connected to line voltage.

Measure Description	Incentive		103L Analysis Drop Down Selections	
HID to LED Screw-in, 35-74W retrofit lamp with 50% minimum wattage savings	\$ 20	per proposed lamp	HID to LED Screw-in, 35- 74W	
HID to LED Screw-in, 75-179W retrofit lamp with 50% minimum wattage savings	\$ 40	per proposed lamp	HID to LED Screw-in, 75- 179W	
HID to LED Screw-in, 180-279W retrofit lamp with 50% minimum wattage savings	\$ 50	per proposed lamp	LED_Lamps HID to LED Screw-in, 180-279W	
HID to LED Screw-in, 280-400W retrofit lamp with 50% minimum wattage savings	\$60	per proposed lamp	LED_Lamps HID to LED Screw-in, 280- 400W	

[•] Omni-directional lamps must be used in omni-directional fixtures such as a post-top globe. Directional lamps must be used in directional fixtures such as shoeboxes, wallpacks and downlights

Existing Buildings, Production Efficiency and Multifamily Buildings Program Information 190



TLED Retrofit

Section 4

- T8 or T5 TLED diameters replacing any existing technology.
- If replacing fluorescent, existing ballasts must be removed or replaced.

Example application: T8 four-lamp recessed troffer to TLED tubes with dedicated driver.

Measure Description	Incentive		103L Analysis Drop Down Selections		
TLED Replacing any existing technology, removing existing ballast, replacing with new T8 or T5 ballast, line voltage TLED, or dedicated driver TLED, and achieving 40% minimum fixture wattage savings	\$1.00	per proposed linear foot	TLED TLED TLED TLED TLED TLED	2' TLED lamp (T5 excluded) 3' TLED lamp 4' TLED lamp 5' TLED lamp 6' TLED lamp 8' TLED lamp U-Bent TLED lamp (4' bent to fit 2')	

- 2' size only T5 TLED are not eligible for incentives.
- TLEDs incentives based on proposed lamp quantities
- TLEDs using existing T8 or T5 ballast, see Section 8 "Relamp"
- TLEDs using existing or operating T12 ballasts are not eligible for incentives
- New fixtures or kits using TLEDs are incentivized as TLEDs only
- TLEDs are not eligible for custom incentives (except for horticulture use). Contact the program for more information.

Existing Buildings, Production Efficiency and Multifamily Buildings



Section 5 Interior LED Fixtur Retrofit as		e options, ball	asts & lamp sockets removed					
Example application: T12 four-lamp recessed troffer to high performance LED retrofit kit.								
Measure Description	Incentive		103L Analysis Drop Down Selections					
Recessed Canister Downlight 30W or less retrofitting or replacing existing incandescent	\$15	per fixture	LED_Interior_Fixtures Recessed C Downlight	Canister				
LED fixture or kit, 25W or less 60% minimum wattage savings per measure line required	\$ 20	per proposed fixture	LED fixture LED_Interior_Fixtures or less	or kit, 25W				
LED fixture or kit, 26-39W 60% minimum wattage savings per measure line required	\$25	per proposed fixture	LED_Interior_Fixtures 39W	or kit, 26-				
LED fixture or kit, 40-57W 60% minimum wattage savings per measure line required	\$30	per proposed fixture	LED_Interior_Fixtures	or kit, 40-				
LED fixture or kit, 58-100W 60% minimum wattage savings per measure line required	\$40	per proposed fixture	LED_Interior_Fixtures	or kit, 58-				

Existing Buildings, Production Efficiency and Multifamily Buildings



Section 6 High-bay • Non screw-in only						
Example application: I	Replace 400W MH high-ba	ay with a 150W	LED high-bay			
Measure	Description	Ince	ntive	103L Analysis	Drop Down Selections	
LED High-Bay, 40-90\ 40% minimum wattage line required	N e savings per measure	\$80	per proposed fixture	LED_High_Bay	LED High-Bay, 40-90W	
LED High-Bay, 91-140 40% minimum wattage line required)W e savings per measure	\$140	per proposed fixture	LED_High_Bay	LED High-Bay, 91- 140W	
LED High-Bay, 141-29 40% minimum wattage line required	99W e savings per measure	\$170	per proposed fixture	LED_High_Bay	LED High-Bay, 141- 299W	
LED High-Bay, 300W 40% minimum wattage line required	or greater e savings per measure	\$220	per proposed fixture	LED_High_Bay	LED High-Bay, 300W or greater	

• See Section 3 for HID to LED screw-in retrofit lamp incentives

Existing Buildings, Production Efficiency and Multifamily Buildings Program Information 190



Section 7

Exterior Pole/Arm-mounted Area Luminaires, Exterior Wall-mounted Area Luminaires, Parking Garage Luminaires, Fuel Pump Canopy, and Architectural Flood/Spot Lighting

• Non screw-in only

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

Measure Description	Incentive		103L Analysis Drop Down Selections		
Recessed Canister Downlight (exterior)	See custom - Section 1		LED_Exterior_Fixtures	Recessed Canister Downlight	
Exterior LED fixture, 20W or less 60% minimum wattage savings per measure line required	\$40	per proposed fixture	LED_Exterior_Fixtures	Exterior LED fixture, 20W or less	
Exterior LED fixture, 21-40W 60% minimum wattage savings per measure line required	\$60	per proposed fixture	LED_Exterior_Fixtures	Exterior LED fixture, 21-40W	
Exterior LED fixture, 41-90W 60% minimum wattage savings per measure line required	\$100	per proposed fixture	LED_Exterior_Fixtures	Exterior LED fixture, 41-90W	
Exterior LED fixture, 91-140W 60% minimum wattage savings per measure line required	\$140	per proposed fixture	LED_Exterior_Fixtures	Exterior LED fixture, 91-140W	
Exterior LED fixture, 141-299W 50% minimum wattage savings per measure line required	\$220	per proposed fixture	LED_Exterior_Fixtures	Exterior LED fixture, 141-299W	
Exterior LED fixture, 300W or greater 50% minimum wattage savings per measure line required	\$320	per proposed fixture	LED_Exterior_Fixtures	Exterior LED fixture, 300W or greater	

Street/roadway lighting is not included here - see PI 190SL-Street Light Addendum.

Existing Buildings, Production Efficiency and Multifamily Buildings

Program Information 190_L



Relamp Only: Existing Linear Fluorescent Fixtur

No ballast change out required

Example application: 32-watt T8 lamps replaced by 15 watt TLEDs. No ballast change out required.

Measure Description	Incentive		103L Analysis Drop Down Selections	
TLED (relamp) T8 or T5 diameter TLED replacing existing fluorescent, operating on existing ballast, and achieving 40% minimum wattage savings per measure line.	\$0.50	per proposed linear foot	Relamp Relamp Relamp Relamp Relamp Relamp Relamp	2' TLED lamp using existing fluorescent ballast (T5 excluded) 3' TLED lamp using existing fluorescent ballast 4' TLED lamp using existing fluorescent ballast 5' TLED lamp using existing fluorescent ballast 6' TLED lamp using existing fluorescent ballast 6' TLED lamp using existing fluorescent ballast 8' TLED lamp using existing fluorescent ballast U-Bent TLED (lamp 4' to fit 2') using existing fluorescent ballast

- 2' size only T5 TLED are not eligible for incentives.
- TLEDs using existing or operating on T12 ballasts are not eligible for incentives
- TLEDs are not eligible for custom incentives (except for horticulture use). Contact the program for more information.

Section 9 Exit Signs								
Measure Description	Ince	ntive	103L Analysis Drop Down Selections					
New Exit Sign, LED (must replace incandescent versions)	\$ 20	per replaced fixture	Exit_Sign New Exit Sign, LED					

Existing Buildings, Production Efficiency and Multifamily Buildings



Section 10 Lighting Controls Controlling loads of 30W or more									
Example application: Integral warehouse aisle occupancy sensor mounted on T5, LED, or T8 High Bay fixture									
Measure Description	Incentive		103L Controls Tabs Drop Down Selections						
Custom control or system. Control devices on connected load less than 30W, or other control or system not detailed here (multi-input control system, advanced controls, LLLC, networked lighting controls)	See custom - Section 1		Custom control or system						
Vacancy Sensor (manual on), Wall Switch. (interior)(auto-on version is not eligible for incentives)	\$ 35	per sensor	Vacancy Sensor (manual on), wall switch						
Occupancy Sensor, fixture mount (interior) Control loads, 30-149W	\$ 30	per sensor	Occupancy Sensor, fixture mount, 30-149W						
Occupancy Sensor, fixture mount (interior) Control loads150W or greater	\$30	per sensor	Occupancy Sensor, fixture mount, 150W or greater						
Occupancy Sensor, ceiling/corner/ surface mount (interior) (hard-wired or wireless), control loads 150W or greater	\$ 105	per sensor	Occupancy Sensor, ceiling/corner/surface mount, control load 150W or greater						
Exterior Occupancy Sensor, fixture or pole mounted (wired or wireless), must reduce fixture wattage by at least 50% of proposed fixture wattage in unoccupied mode using dimming, step, bi-level, or on/off, control loads 30-59W	\$ 20	per sensor	Exterior occupancy sensor, fixture or pole mounted, 30-59W						
Exterior Occupancy Sensor, fixture or pole mounted (wired or wireless), must reduce fixture wattage by at least 50% of proposed fixture wattage in unoccupied mode using dimming, step, bi-level, or on/off, control loads 60W or greater	\$ 30	per sensor	Exterior occupancy sensor, fixture or pole mounted, 60W or greater						

Existing Buildings, Production Efficiency and Multifamily Buildings



LED Cooler/Freezer Lighting Section 11 LED fixtures must be on DLC product list in refrigerated categories **LED Display Case Estimated Measure Description** Incentive Lighting Savings 10 KWh Motion Sensor. · On LED cases, side bar (single) per linear ft of per linear ft of \$2 on Low Power LED Reach-in or open display cases¹ fixture fixture 18 KWh Motion Sensor. · On LED cases, mullion bar (double) per linear ft of per linear ft of \$4 on High Power LED Reach-in or open display cases¹ fixture fixture Single Row 49 KWh Replace T8 with LED side bar (single) per linear ft of T8 Low Power LED per linear ft of \$10 Inside reach-in or open display cases² fixture (Medium Temp Case) fixture Single Row 83 KWh • Replace T12 with LED side bar (single) per linear ft of T12 Low Power LED per linear ft of \$10 Inside reach-in or open display cases² fixture (Medium Temp Case) fixture Double Row 110 KWh • Replace T8 with LED mullion (double) per linear ft of T8 High Power LED per linear ft of \$20 Inside reach-in or open display cases² fixture (Medium Temp Case) fixture 177 KWh Double Row Replace T12 with LED mullion (double) per linear ft of T12 High Power LED per linear ft of \$20 · Inside reach-in or open display cases2 fixture (Medium Temp Case) fixture Single Row 36 KWh • Replace T8 with LED side bar (single) T8 Low Power LED per linear ft of per linear ft of \$10 (Medium Temp Case or • On the canopy or lip of open display cases2 fixture fixture Low Temp Case) Single Row 61 KWh T12 Low Power LED • Replace T12 with LED side bar (single) per linear ft of per linear ft of \$10 (Medium Temp Case or On the canopy or lip of open display cases² fixture fixture Low Temp Case) Double Row 81 KWh T8 High Power LED • Replace T8 with LED mullion (double) per linear ft of per linear ft of \$20 (Medium Temp Case or On the canopy or lip of open display cases² fixture fixture Low Temp Case) Double Row 130 KWh Replace T12 with LED mullion (double) T12 High Power LED per linear ft of per linear ft of \$20 • On the canopy or lip of open display cases2 (Medium Temp Case or fixture fixture Low Temp Case) 68 KWh Single Row • Replace T8 with LED side bar (single) per linear ft of T8 Low Power LED per linear ft of \$10 · Inside reach-in or open display cases2 fixture (Low Temp Case) fixture Single Row 115 KWh Replace T12 with LED side bar (single) per linear ft of T12 Low Power LED per linear ft of \$10 · Inside reach-in or open display cases2 fixture (Low Temp Case) fixture

Existing Buildings, Production Efficiency and Multifamily Buildings



LED Display Case Lighting	Measure Description	Estimated Savings	Incentive	
Double Row T8 High Power LED (Low Temp Case)	Replace T8 with LED mullion (double) Inside reach-in or open display cases²	152 KWh per linear ft of fixture	\$20	per linear ft of fixture
Double Row T12 High Power LED (Low Temp Case)	ligh Power LED • Replace 112 with LED mullion (double) • Inside reach-in or open display cases²		\$20	per linear ft of fixture

¹ Motion Sensors – LED Case Lighting Requirements:

- Incentives are based on linear feet of LED fixture controlled by the motion sensor
- Must install a motion sensor controlling permanently installed LED lighting in refrigerated reach-in case(s)
- Motion sensor must reduce the lighting load to 20% or less when it senses no activity for more than one minute
- Measure is applicable to LED lighting retrofits or existing LED case lighting without a motion sensor installed
- 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 < 4.5W/ft of fixture (single)
 - High power luminaire is defined as one using > 4.5W to < 8.5W/ft of fixture (double)

² LED Case Lighting Requirements:

- Incentives paid are based on linear feet of installed LED fixture.
- LED fixtures must be on the Design Lights Consortium product list in refrigerated categories.