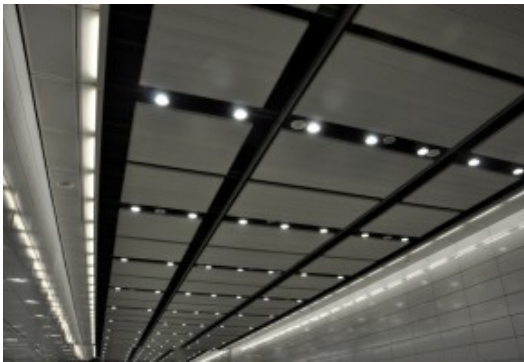




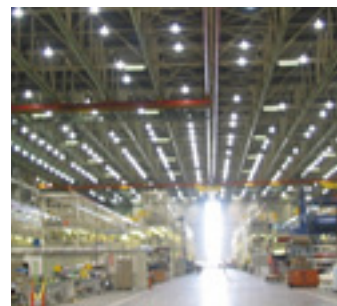
Commercial & Industrial Lighting Program Offerings

June 2012



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Energy Efficiency for Commercial & Industrial Lighting

June 2012

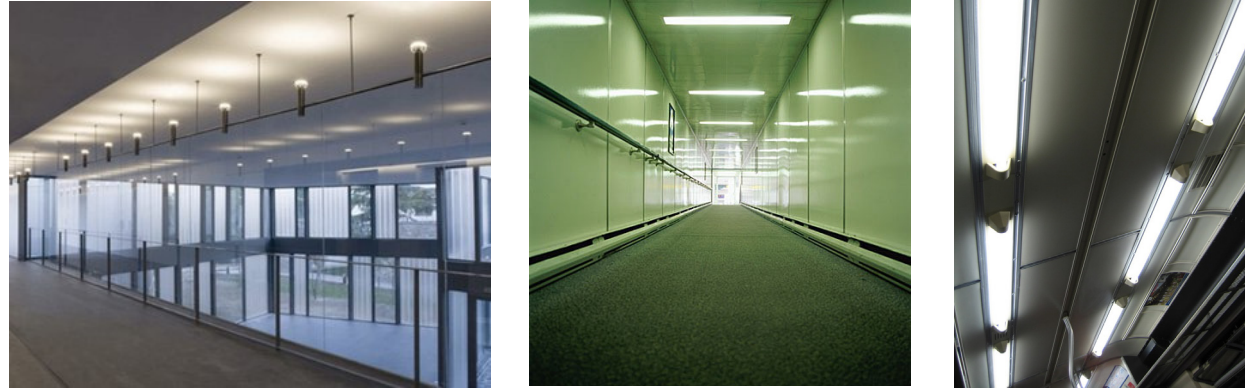
THE BONNEVILLE POWER ADMINISTRATION offers a variety of incentives for the upgrade and installation of qualified energy-efficient lighting equipment that lowers energy use and reduces operating costs for your industrial & commercial customers.

With new federal legislation, the BPA has redesigned industrial and commercial lighting program offerings. These new programs offer valuable benefits and incentives that empower utilities to meet their commercial conservation goals while saving their customer's money

Small and large businesses benefit from various reimbursements designed for office spaces, schools, hotels, shops, grocery stores and more. Reimbursements are available for both deemed measures and custom projects. Many larger commercial retrofit and new construction opportunities are ideal candidates for the custom project path.

Some programs have been removed from previous program offerings, these include; standard T8's (previously measure B), Pulse start metal halides (previously included in measure I), and measures K & L. Read on to understand what reimbursements are available for commercial and industrial lighting applications and how they can be used to help your customers. The measures are organized by type of lighting and wattage reduction.

Measure Series A Linear Fluorescents



These measures cover both interior and exterior linear fluorescent lighting, includes HPT8 and NLO T5. All 4' and 8' T8 products must be on the CEE qualifying products list OR have system lumens > 95 lumens/watt. T12 lamps included must have an arithmetic baseline applied, the arithmetic baseline will dictate which specific measure can be applied. Measure A4 is for all irregular sized linear fluorescents, they are not required to be high performance.

Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
A1	Linear Fluorescent (4' & 8')	<100	>35%	\$10.00
A1-RD	Linear Fluorescent (4' & 8')	<100	>50%	\$15.00
A2	Linear Fluorescent (4' & 8')	101-200	>50%	\$40.00
A2-RD	Linear Fluorescent (4' & 8')	101-200	>65%	\$60.00
A3	Linear Fluorescent (4' & 8')	201-300	>40%	\$50.00
A3-RD	Linear Fluorescent (4' & 8')	201-300	>55%	\$80.00
A4	Irregular size Linear Fluorescent (2', 3', 5', 6', 7')	N/A	N/A	\$15.00

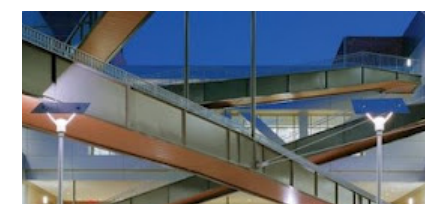
The information provided in these materials is meant to provide an broad overview of energy efficiency reimbursement opportunities for utilities. Refer to the Energy Efficiency Implementation Manual for a complete description of measures, incentives, specifications and requirements.

Measure Series B Compact Fluorescents



These measures cover compact fluorescent lighting, including screw-in CFLs, hardwired CFLs, and cold cathodes.

Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
B1	Screw in CFL or Cold Cathode	<100	>60%	\$3.00
B2	Screw in CFL or Cold Cathode	101-150	>60%	\$6.00
B3	Dimmable or Flashable Cold Cathode	N/A	>50%	\$10.00
B4	Hardwired/GU-24 base CFL	<150	>50%	\$40.00
B5	Hardwired/GU-24 base CF	>151	>50%	\$80.00



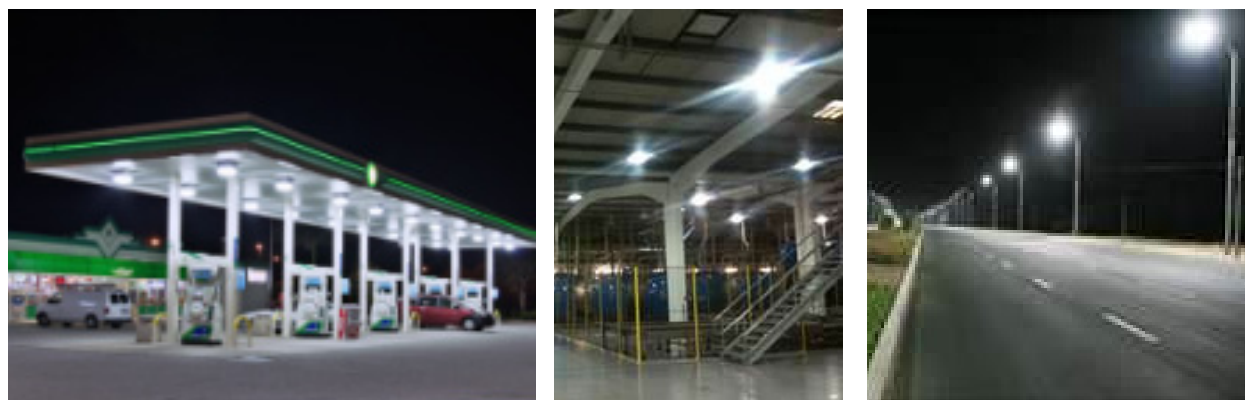
Measure Series C Ceramic Metal Halide

These measures are for Ceramic Metal Halides and includes screw-in and single or double ended ceramic metal halides.

Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
C1	Ceramic Metal Halide	50-99	50%	\$30.00
C2	Ceramic Metal Halide	100-199	50%	\$40.00
C3	Ceramic Metal Halide	200-299	50%	\$80.00
C4	Ceramic Metal Halide	>300	50%	\$100.00

The information provided in these materials is meant to provide an broad overview of energy efficiency reimbursement opportunities for utilities. Refer to the Energy Efficiency Implementation Manual for a complete description of measures, incentives, specifications and requirements.

Measure Series D Induction Lighting



These measures cover induction lighting including screw-in and hardwire fixtures. All induction products must have a lamp life of >60,000 and a CRI >60. Induction retrofit kits can be used but are not recommended by BPA.

Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
D1	Induction Lighting	50-99	>50%	\$30.00
D2	Induction Lighting	100-199	>50%	\$60.00
D3	Induction Lighting	200-299	>50%	\$100.00
D4	Induction Lighting	300-399	>50%	\$120.00
D5	Induction Lighting	400-499	>50%	\$140.00
D6	Induction Lighting	>500	>50%	\$200.00

Measure Series E Electronic Metal Halides



These measures are for Electronic Metal Halides, they do not include pulse start.

Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
E1	Electronic Metal Halide	100-199	>50%	\$60.00
E2	Electronic Metal Halide	200-299	>50%	\$100.00
E3	Electronic Metal Halide	300-399	>50%	\$140.00
E4	Electronic Metal Halide	400-499	>50%	\$180.00
E5	Electronic Metal Halide	>500	>60%	\$400.00

The information provided in these materials is meant to provide an broad overview of energy efficiency reimbursement opportunities for utilities. Refer to the Energy Efficiency Implementation Manual for a complete description of measures, incentives, specifications and requirements.

Measure Series F LEDs/Solid State Lighting



Several LED measures have been added to the lighting calculator, program requirements for LEDs are based of efficacy and wattage reduction. LED products that meet these requirements, and that are listed on at least one of the qualifying products list do not need BPA pre-approval. Links to qualified products can be found on the Lighting Calculator's "Shared Notes & Links" page. Utilities will maintain records of product cut sheets documenting LM-79 testing and product efficacy. These documents should be available to BPA upon request. BPA is not requiring warranties for LED products. 4' LED tubes must be submitted as a non-standard measure. Sign Lights going from neon to LED must be submitted as a non-standard measure.

BPA C&I LED Minimum Program Requirements				May 2012
LEDs by Application	Required Efficacy	Minimum Required Wattage Drop	QPL Required	New Measure
Screw in Includes: reflector, A-lamp, and twist in lamps	≥ 40 l/w	≥ 75%	Yes	F1
Small LED Fixture Includes: recessed cans (retro-fit included), track fixtures, and MR-16 lamps.	≥ 50 l/w	≥ 75%		F2
Troffers/LED Tubes	≥ 90 l/w	≥ 50%		F3
Exterior General Area Includes: Parking lot, street, wall packs, bollards, floods, barn/yard, pole lamps. (Excludes gas station canopies)	≥ 65 l/w	≥ 50%		F4-F8
Gas Station Canopy	≥ 65 l/w	≥ 60%		F9-F10
High Bay	≥ 90 l/w	≥ 60%		F11-F14
Parking Garage	≥ 80 l/w	≥ 50%		F15
Loading Dock	≥ 40 l/w	≥ 50%		F16
Exit Signs	NA	1-3 watts/fixture	No	F17
Linear LED Applications Includes: Refrigerator/Cooler case, Accent, Cove Lighting	≥ 90/w	1-6 watts/foot	No	F18

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Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
Screw-in LEDs				
F1	Screw-In LEDs (interior/exterior)	<150	75%	\$30.00
F1- CFL	Screw-In LEDs from CFL baseline	N/A	Not Required	\$10.00
Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
Small LED Fixtures				
F2	Small LED Fixtures	N/A	60%	\$30.00
F2-RD	Small LED Fixtures Redesign		75%	\$40.00
Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
LED Troffers				
F3	LED Troffers (excludes 4' LED tubes)	50-200	>50%	\$50.00
F3-RD	LED Troffers Redesign	50-200	>70%	\$70.00
Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
Exterior General Area Lights				
F4	Exterior General Area	50-99	50%	\$40.00
F4-RD	Exterior General Area	50-99	70%	\$50.00
F5	Exterior General Area	100-199	50%	\$60.00
F5-RD	Exterior General Area	100-199	70%	\$70.00
F6	Exterior General Area	200-299	50%	\$80.00
F6-RD	Exterior General Area	200-299	70%	\$120.00
F7	Exterior General Area	300-499	50%	\$150.00
F7-RD	Exterior General Area	300-499	70%	\$200.00
F8	Exterior General Area	>500	50%	\$300.00
F8-RD	Exterior General Area	>500	70%	\$400.00

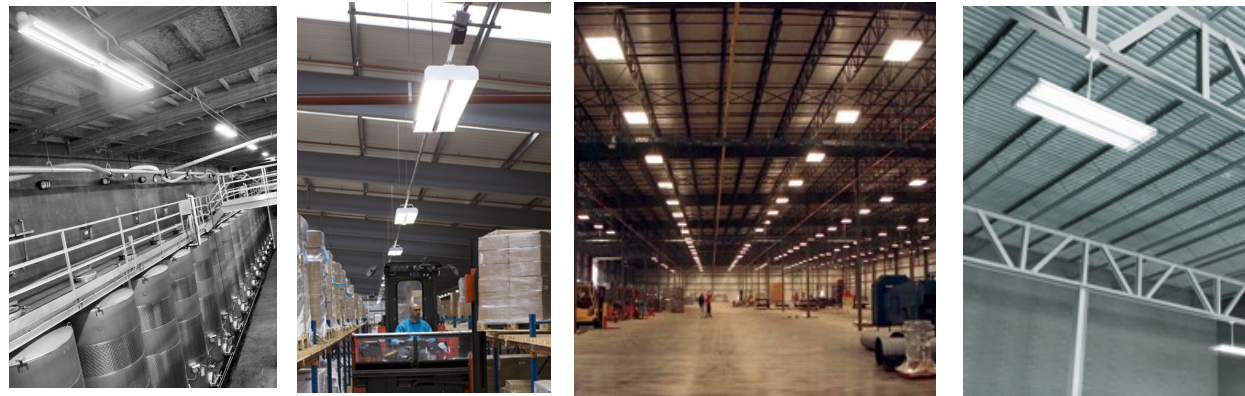
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Measure Series F LEDs/Solid State Lighting

Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
LED Gas Station Canopy Lights (screw in fixtures not approved)				
F12	LED Gas Station Canopy Lights	200-399	60%	\$135.00
F12-RD	LED Gas Station Canopy Lights	200-399	70%	\$160.00
F13	LED Gas Station Canopy Lights	>400	70%	\$190.00
F13-RD	LED Gas Station Canopy Lights	>400	80%	\$220.00
Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
LED High Bay				
F14	LED High Bay	200-299	50%	\$75.00
F14-RD	LED High Bay	200-299	70%	\$105.00
F15	LED High Bay	300-399	50%	\$115.00
F15-RD	LED High Bay	300-399	70%	\$160.00
F16	LED High Bay	400-499	50%	\$120.00
F16-RD	LED High Bay	400-499	70%	\$170.00
F17	LED High Bay	>500	50%	\$325.00
F17-RD	LED High Bay	>500	70%	\$450.00
Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
LED Parking Garage Lights				
F18	LED Parking Garage Lights	70-250	50%	\$125.00
F18-RD	LED Parking Garage Lights (requires controls 7/24 hrs)	70-250	50%	\$175.00
Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
LED Loading Dock Lights				
F19	LED Loading Dock Light	300-500	50%	\$130.00
Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
LED Exit Signs (Upgrade Incandescent or CFL to LED)				
F20	LED Exit Signs	Sign must be 1-3 watts	Rated >50,000 hrs	\$50.00
Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
Linear LED Application (Sign & Refrigerated Case Lighting)				
F21	Linear LED Application	1-6 watts/linear foot	N/A	\$15.00

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Measure Series G HO Linear Fluorescent Hi-Bay



These measures are for HO Linear Fluorescent Hi-Bay lighting systems. This measure series is designated by replacing baseline of >250 watts with linear fluorescents with HO ballasts. All HO T8 lamps and ballasts must meet CEE high performance requirements to be eligible. Also, lamp mounting heights must be greater than 15 feet. The 6 lamp T5 is considered a non-standard measure. Utilities and Trade Allies are encouraged to use controls with this application.

Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
G1	Going to 4 Lamp T8 HO or 3 Lamp T5 HO	200-299	50%	\$75.00
G1-RD	Going to 4 Lamp T8 HO or 3 Lamp T5 HO	200-299	70%	\$100.00
G2	HO Linear Fluorescent Hi-Bay	300-399	50%	\$120.00
G2-RD	HO Linear Fluorescent Hi-Bay	300-399	65%	\$140.00
G3	HO Linear Fluorescent Hi-Bay	400-499	40%	\$100.00
G3-RD	HO Linear Fluorescent Hi-Bay	400-499	65%	\$160.00
G4	HO Linear Fluorescent Hi-Bay	>500	50%	\$325.00
G4-RD	HO Linear Fluorescent Hi-Bay	>500	65%	\$420.00

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Measure Series G Controls



BPA recognizes all types of controls; photocells, occupancy sensors, bi-levels, timers, dual tech, ect. BPA will not incentivize controls where they are already existing or where they are required by code. Common examples include parking lots, offices, conference/meeting rooms. The default reduction in hours of operation for a selected control will be 25%. This number can be adjusted manually by the calculator user. Utilities wishing to claim greater than 25% need to provide justification documentation in the folder. Outdoor lighting operating on an assumed 12 hours/day schedule, controlled by a photocell, should have the % reduction of hours reduced to zero when selecting a photocell.

Measure	Description	Watt Baseline	Required Wattage Reduction	Incentive
H1	Controls	50-200	N/A	\$35.00
H2	Controls	>200	N/A	\$60.00

Non-Standard Measures

Any existing fixture or proposal can be submitted to BPA as a non-standard measure. Non-standard measures should be submitted to Lighting@BPA.gov in the form of a completed lighting calculator with the proposed product cut sheets attached (if applicable). Non-standard approval will be communicated to utilities from a COTR.

Applications that need to be sent in for non-standard approval include:

- LED Sign Lights replacing neon
- 4' LED Tubes
- LED's replacing > 1,000 baseline

Space ID	Quantity	Equipment	Type	Sub-type	Fixture	Wattage
<i>proposed new fixtures to eligible (see the Program Enrolling page for more details on measure eligibility).</i>						
Non-Standard Lighting Measures (BPA pre-approval required)*						
Identify Space	1	ExistingFixtures	Enter existing baseline information here			458
Type	1	NewFixtures	Enter proposed information here			200
	1	Controls	Occupancy Sensors	fixture-mounted	% Reduction in Hours >>	25%

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www.bpa.gov

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