



Commercial and Industrial Retrofit Program

Seattle City Light offers incentives through its Commercial and Industrial Retrofit Program to help businesses reduce the upfront costs of energy-efficient upgrades. This program supports non-residential, commercial, industrial, institutional, and nonprofit customers within City Light's service territory in implementing lighting improvements and HVAC upgrades that lower energy use and operating costs. Eligible projects include upgrades to building controls, HVAC systems, industrial processes, water heating, and LED lighting (new fixtures, retrofit kits, and networked lighting controls). City Light also incentivizes complex multi-measure building system upgrades that follow these Program Requirements.

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PARTICIPATION REQUIREMENTS

Eligibility

To be eligible for funding for a commercial or industrial retrofit project, the customer must have a commercial electricity account in City Light's service territory. To receive an incentive, equipment installation cannot begin, and products/equipment shall not be purchased until the project has been reviewed and approved by City Light and there is a signed Participation Agreement, as detailed below in the Project Timeline and Required Documentation section. For any product to be eligible for an incentive, it must comply with all product specifications, be clearly marked with product information, and meet all applicable federal, state, and local code requirements. Further details on product eligibility are included in the Product Specifications section below.

If you are not upgrading an existing building or piece of equipment, please visit our website to view our new construction program offerings at <https://www.seattle.gov/city-light/construction-services/building-for-energy-efficiency>.

You may also contact an Energy Advisor to see if your project qualifies for an incentive at (206) 684-3800 or SCEnergyAdvisor@seattle.gov.

Participant Obligations

Once an eligible application form has been received and approved, City Light will send the customer a

Participation Agreement outlining the terms and conditions of participation and incentive payment. The customer must sign and return this agreement within 30 days of receiving the incentive offer. All terms and conditions are legally binding and required. The Participation Agreement will be active for a specified contract term from the date the agreement was signed. Project installation, project review and verification, and incentive payment must be completed within the contract term.

Program Incentive Summary & Funding Caps

Retrofit incentives are based on either calculated annual energy savings or a per-unit rate specified in your contract. Current rebate and incentive rates are available at Seattle City Light's incentive page <https://www.seattle.gov/city-light/construction-services/building-for-energy-efficiency/energy-efficiency-program-tools-and-resources#incentives>. Incentive amounts may change without notice and are updated twice a year - January 1 and July 1. Projects submitted prior to these dates will be eligible for the current rates; those submitted after will use the updated rates.

Retrofit projects must have an estimated base incentive of at least \$1,500 to qualify. Bonus or supplemental incentives cannot be used to meet this minimum. Projects below this threshold should consider instant discounts through the [Lighting to Go](#) program or [Midstream HVAC+ program](#), depending on the project scope.

City Light's incentives are capped at 70% of the eligible project cost (borne by the customer). Eligible project costs are either total or incremental depending on the project type and baseline.

- Total cost applies when the baseline reflects the existing equipment operation and includes all the upfront costs required to install the energy-efficient measure (equipment/capital costs and labor costs directly related to the energy efficiency upgrade).
- Incremental cost applies to prescriptive measures and projects where equipment is at or near the end of its useful life and must be replaced. In these cases, incentives are based on the additional cost of choosing high-efficiency equipment over standard code-compliant equipment. For prescriptive measures, total cost is defined by Bonneville Power Administration (BPA) and limited by program rules.

Total Customer Cost

The total cost borne by the customer is the full amount the customer is responsible for paying to complete a project, which includes all eligible expenses such as equipment, labor, permits, and any other associated costs. While incentives are available to help reduce this overall expense, they are capped at 70% of the total project cost, meaning the customer must contribute at least 30% toward the total project cost. Rebates, discounts, and third-party contributions reduce the customer's actual cost and are excluded from the total project cost calculation; they will not be considered part of the cost borne by the customer.

Project Timeline & Required Documentation

To receive an incentive, you must provide City Light with documentation demonstrating the proper installation of energy efficient products. If project documentation is incomplete or insufficient, an incentive payment may be delayed or denied. Further detail on required documents is included in the following table, and summarized below:

- Step 1: Pre-Installation
 - Product specification sheets
 - Signed Application Disclosure form
 - Pre-installation documentation including scope of work and plans
 - Estimated project cost

- Step 2: Signed Participation Agreement
- Step 3: Post-Installation
 - As-built documentation
 - Invoice(s)

Pre-Agreement

Action	<p>Fill out your Commercial Retrofit application online. An Energy Management Analyst (EMA) will be assigned to work with you on your retrofit project. We are happy to work with you even before the project has been clearly defined. <u>Your project will not qualify for incentive funding if equipment has been purchased and/or if installation has begun prior to review and approval from City Light staff or before a Participation Agreement has been signed.</u></p> <p>The time needed to calculate or validate energy savings can vary for each project and may include on-site or virtual pre-installation equipment verification. Please allow time in the project scheduling for this review.</p>
Documentation	<p>To qualify for program funding, the following required documentation must be submitted to City Light for review and approval:</p> <ul style="list-style-type: none"> • Product Specification Sheets: Product Specification Sheets (also referred to as cut sheets or spec sheets) are required for all products and equipment. Note: If an existing product is being replaced by multiple pieces of equipment not covered by a single product specification sheet, (i.e., separate driver, sensor, etc.), cut sheets must be submitted for each separate component. • Estimated Project Cost: Proposed project cost shall be submitted in the form of a proposal, quote, estimate, or bid. Proposed project costs should include all costs borne by the customer for the associated scope of work including, but not limited to, contracted or in-house labor, equipment and materials, rental equipment, applicable permits, and associated disposal fees. • Pre-Installation Documentation: Customers must work with an EMA from City Light to provide all required information on existing conditions.

Participation Agreement

Action	<p>Once the required pre-installation documentation has been submitted, City Light will confirm the project's eligibility to receive an incentive based on the program specifications contained herein and any project-specific addenda. All projects are subject to verification of energy savings calculations and/or visual on-site verification. Final incentive funding is solely the discretion of City Light review.</p> <p>Once the City Light customer has signed the Participation Agreement from City Light, the customer can proceed with purchasing and installing (either in-house or notifying the contractor to start the installation.)</p>
Documentation	<ul style="list-style-type: none"> • Participation Agreement: The Participation Agreement outlines what will be required for incentive payment (monitoring, verification, invoices, etc.). The customer must sign and return this agreement within 30 days of receiving the incentive offer. All terms and conditions are legally binding and required. The Participation Agreement will be active for a specified term from the date the agreement was signed. Project installation, project review

	<p>and verification, and incentive payment must be completed within the project contract term.</p> <ul style="list-style-type: none"> • Change in Scope from Pre-Installation: If the customer would like to make any changes to the scope of the project after signing the Participation Agreement, contact City Light immediately to make sure the project is still eligible for an incentive. City Light must authorize the change in writing <i>prior</i> to the purchase and installation of the revised scope. If no changes are made to the project, there is no need to contact City Light until the project is complete.
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Post-Installation

Action	<p>Once the project is completed and the equipment is operating according to scope, contact your assigned EMA to notify City Light that the project is complete and initiate an incentive payment. Projects may also require additional verification in the form of a post-installation site verification, trend logs from the Building Automation System, or electrical metering of equipment to verify equipment installation and confirm proper operation. Refer to the product specifications below and any included project-specific specifications for detailed requirements.</p> <p>During the post-installation verification, equipment must be labeled with model information or a visible nameplate that matches the equipment submittals.</p>
Documentation	<ul style="list-style-type: none"> • As-built documentation must be submitted reflecting the final installation counts and final equipment model numbers. If equipment selection has changed during the project, product specification sheets for the new equipment must be submitted. As noted in the Participation Agreement section above, you must notify City Light immediately of any change in scope to ensure incentive eligibility and approval. • Invoice(s): All projects are required to submit a customer invoice that reflects the total project cost in the Commercial Retrofit workbook, itemized with material and labor costs for the energy-related portion of the work. The project invoice shall be the final invoice for the work completed and should reflect the final amount paid by the customer. If the invoice does not come directly from the customer to City Light, then the customer must be copied on all communication by the sender. All project invoices must provide the following level of detail: <ul style="list-style-type: none"> ▪ Contractor company name and address ▪ Customer name and site address ▪ Unique invoice number ▪ Date ▪ Quantity of each item by model number (cost-allocation not required) ▪ Total customer cost (Eligible Costs) including the following elements <ul style="list-style-type: none"> • Equipment • Labor • Permitting • Disposal fees • Equipment rental specific to completing the project • Design or system commissioning

	<ul style="list-style-type: none">• Sales tax• Payment Assignment Form: If the City Light customer would like the incentive payment to go directly to a contractor, this form can be completed and signed by both parties to assign payment to a third party.• W-9 Form: If assigning payment to a contractor, a W-9 form for the contractor will be required if not already on file.• Submittals: Additional submittals may be required depending on the project. Refer to the Participation Agreement specifications for additional technology-specific requirements.
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Product Specifications

For any product to be eligible for an energy efficiency incentive, it must be clearly marked with product information and meet all applicable federal, state, and local code requirements. All equipment must carry a safety certification by an approved testing laboratory (UL, CE, ETL, etc.). In addition, products will need to meet the following City Light specifications.

RETROFIT LIGHTING PROJECTS

Measure	Specifications																															
All Lighting	<p>For any lighting product to receive an incentive, it must meet the criteria included in this table. It is the responsibility of the customer to ensure appropriate illumination levels.</p> <p>To be eligible for lighting incentives, all products must meet one of the following requirements:</p> <ol style="list-style-type: none"> 1) The product is listed on the applicable DesignLights Consortium (DLC) Qualified Product List (QPL). Please note you must create a DLC account and log in to use any of the following DLC lists: <ul style="list-style-type: none"> • Fixtures (including indoor, high bay, and exterior), downlights, retrofit kits, sign lighting, and case lighting. • Networked lighting controls including luminaire level lighting controls (LLLC) • Horticultural lighting 2) <u>Downlights are only listed in Energy Star</u> and must be hardwired (e.g., no Edison base/screw-in) and can be any lumen output. 3) Ad-hoc approval by City Light staff with the following product documentation requirements: <ul style="list-style-type: none"> • Product LM-79 test results • Other documentation as requested <p>LM-79 test results may be used to verify that proposed lighting fixtures not listed on a QPL meet the following minimum technical specifications specific to the appropriate luminaire category (below). This table is from DLC SSL v5.1 technical requirements.</p> <table border="1"> <thead> <tr> <th>Category</th> <th>General Application</th> <th>Lumens per Watt</th> <th>Warranty (Years)</th> <th>CRI</th> <th>Power Factor</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Outdoor Luminaires & Retrofit Kits</td> <td>Low Output</td> <td rowspan="4">105</td> <td rowspan="4">≥5</td> <td rowspan="4">≥70</td> <td rowspan="4">≥.9</td> </tr> <tr> <td>Mid Output etc</td></tr> <tr> <td>high output</td></tr> <tr> <td>Very High Output</td></tr> <tr> <td rowspan="6">Indoor Luminaires & Retrofit Kits</td> <td>Indoor Directional</td> <td>80</td> <td rowspan="6">≥5</td> <td rowspan="6">≥80</td> <td rowspan="6">≥.9</td> </tr> <tr> <td>Case Lighting</td> <td>95</td></tr> <tr> <td>Troffer</td> <td>110</td></tr> <tr> <td>Linear Ambient</td> <td>115</td></tr> <tr> <td>High-Bay</td> <td>120</td></tr> <tr> <td>Low-Bay</td> <td>115</td></tr> </tbody> </table> <p>City Light reserves the right to deny eligibility for products that are not listed on a qualified products list (QPL).</p> <p>For retrofit lighting incentives, fixture wattage must always be entered as the full input wattage—combined wattage of the fixture (i.e., driver, ballast, on-board controls)—and must match the product specification sheet. If a fixture utilizes high-end trim or selectable wattage to reduce energy use, the incentive will be calculated based on the reduced wattage, subject to verification at the end of the project. Customers or contractors can confirm reduced wattage settings with photo-documentation, screenshot or on-site walkthrough. If City Light is unable to verify the reduced wattage settings, the full fixture wattage will be used to calculate the final incentive.</p>	Category	General Application	Lumens per Watt	Warranty (Years)	CRI	Power Factor	Outdoor Luminaires & Retrofit Kits	Low Output	105	≥5	≥70	≥.9	Mid Output etc	high output	Very High Output	Indoor Luminaires & Retrofit Kits	Indoor Directional	80	≥5	≥80	≥.9	Case Lighting	95	Troffer	110	Linear Ambient	115	High-Bay	120	Low-Bay	115
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LED Fixtures and Retrofit Kits																			
LED Fixtures	<p>New LED fixtures include all eligible luminaires (as defined by the DLC) including troffers, panels, low-bay and high-bay style fixtures, and exterior fixtures (e.g., light poles). TLEDs and other LED lamps are not eligible through the Commercial and Industrial Retrofit Program. You can get instant discounts on these LED lighting products and more through Lighting to Go.</p> <p>Customers receiving a commercial retrofit incentive from City Light cannot also receive a Lighting to Go instant discount for fixtures used in the commercial retrofit.</p>																		
Retrofit Kits	<p>Seattle City Light offers two incentive rates for retrofit kits (as defined by the DLC 'Primary Use' categories):</p> <ul style="list-style-type: none"> • New or integrated retrofit kits receive \$0.28/kWh • Component or non-integrated retrofit kits receive \$0.20/kWh <p>Eligibility can be determined by visiting DLC's eligible retrofit kits page and then confirming whether the fixture is integrated or non-integrated by checking the 'Primary Use' category in the DLC listing for the fixture.</p> <p>There are two 'Primary Use' retrofit kit fixtures considered 'component' or non-integrated retrofit kits that receive \$0.20/kWh:</p> <ul style="list-style-type: none"> • Linear-Style Retrofit Kits for 2x2, 1x4, and 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces • Retrofit Kits for Direct Linear Ambient Luminaires <table border="1"> <tr> <td>New or integrated (\$0.28/kWh) retrofit kit example</td><td> PRODUCT OVERVIEW <table border="1"> <tr> <td>Classification</td><td>Premium</td></tr> <tr> <td>Primary Use</td><td>Integrated Retrofit Kits for 2x4 Luminaires</td></tr> </table> </td></tr> <tr> <td>Component or non-integrated (\$0.20/kWh) retrofit kit example</td><td> PRODUCT OVERVIEW <table border="1"> <tr> <td>Classification</td><td>Standard</td></tr> <tr> <td>Primary Use</td><td>Linear Retrofit Kits for 2x4 Luminaires</td></tr> </table> </td></tr> <tr> <td>Component or non-integrated (\$0.20/kWh) retrofit kit example</td><td> PRODUCT OVERVIEW <table border="1"> <tr> <td>Classification</td><td>Premium</td></tr> <tr> <td>Primary Use</td><td>Retrofit Kits for Direct Linear Ambient Luminaires</td></tr> </table> </td></tr> </table>	New or integrated (\$0.28/kWh) retrofit kit example	PRODUCT OVERVIEW <table border="1"> <tr> <td>Classification</td><td>Premium</td></tr> <tr> <td>Primary Use</td><td>Integrated Retrofit Kits for 2x4 Luminaires</td></tr> </table>	Classification	Premium	Primary Use	Integrated Retrofit Kits for 2x4 Luminaires	Component or non-integrated (\$0.20/kWh) retrofit kit example	PRODUCT OVERVIEW <table border="1"> <tr> <td>Classification</td><td>Standard</td></tr> <tr> <td>Primary Use</td><td>Linear Retrofit Kits for 2x4 Luminaires</td></tr> </table>	Classification	Standard	Primary Use	Linear Retrofit Kits for 2x4 Luminaires	Component or non-integrated (\$0.20/kWh) retrofit kit example	PRODUCT OVERVIEW <table border="1"> <tr> <td>Classification</td><td>Premium</td></tr> <tr> <td>Primary Use</td><td>Retrofit Kits for Direct Linear Ambient Luminaires</td></tr> </table>	Classification	Premium	Primary Use	Retrofit Kits for Direct Linear Ambient Luminaires
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Controls																																															
Standard Lighting Controls	<ul style="list-style-type: none"> Standard Lighting Controls include: <ul style="list-style-type: none"> Daylight sensors Occupancy sensors Occupancy and daylight sensors <p>If fixtures are upgraded in addition to lighting controls, there is an incentive for fixture savings.</p>																																														
Networked Lighting Controls (NLC)	<p>Seattle City Light offers a bonus incentive for Networked Lighting Control (NLC) systems listed on DesignLights Consortium's Qualified Product List. This bonus applies <i>per controlled fixture</i> and requires the fixture to be controlled by luminaire-level lighting controls (LLLC) or non-LLLC - which can be either embedded during manufacturing or site-installed as separate components.</p> <p>Controlled fixtures must have a manufactured wattage ≥ 20 fixture watts* <u>before</u> any high-trim is applied to qualify. NLC systems must be <i>capable</i> of creating at least 2 zones per 300 ft².</p> <p>The bonus incentive is applied to the following lighting control applications:</p> <table border="1"> <thead> <tr> <th>Network Lighting Control System</th><th>DesignLights Consortium Qualified Product Listed</th><th>Fixture Type</th><th>Control Type</th><th>Bonus Incentive</th><th>Energy Savings Incentive</th></tr> </thead> <tbody> <tr> <td>LLLC</td><td>QPL</td><td>New or Integrated Fixture</td><td>Embedded controls</td><td>\$50 per fixture</td><td>\$0.28/kWh Fixture Savings \$0.28/kWh Control Savings</td></tr> <tr> <td>LLLC</td><td>QPL</td><td>New or Integrated Fixture</td><td>Site-installed controls</td><td>\$25 per fixture</td><td>\$0.28/kWh Fixture Savings \$0.28/kWh Control Savings</td></tr> <tr> <td>LLLC</td><td>QPL</td><td>Component or Non-Integrated Fixture</td><td>Embedded controls</td><td>\$50 per fixture</td><td>\$0.20/kWh Fixture savings \$0.28/kWh Control savings</td></tr> <tr> <td>LLLC</td><td>QPL</td><td>Component or Non-Integrated Fixture</td><td>Site-installed controls</td><td>\$25 per fixture</td><td>\$0.20/kWh Fixture savings \$0.28/kWh Control savings</td></tr> <tr> <td>Non-LLLC</td><td>QPL</td><td>All Fixture Types</td><td>Networked system</td><td>\$25 per fixture</td><td>\$0.28/kWh Control Savings</td></tr> <tr> <td>NLC</td><td>Non-QPL</td><td>All Fixture Types</td><td>Not DLC-listed</td><td>No bonus</td><td>\$0.28/kWh Control Savings</td></tr> </tbody> </table> <p>* Embedded Controls have the capability to have a networked occupancy sensor, ambient light sensor, and high-end trim installed for each luminaire/kit/lamp, and directly integrated or embedded into the form factor during the manufacturing process.</p> <p>* Site-Installed controls are controls installed as separate modules or components to the fixture.</p>					Network Lighting Control System	DesignLights Consortium Qualified Product Listed	Fixture Type	Control Type	Bonus Incentive	Energy Savings Incentive	LLLC	QPL	New or Integrated Fixture	Embedded controls	\$50 per fixture	\$0.28/kWh Fixture Savings \$0.28/kWh Control Savings	LLLC	QPL	New or Integrated Fixture	Site-installed controls	\$25 per fixture	\$0.28/kWh Fixture Savings \$0.28/kWh Control Savings	LLLC	QPL	Component or Non-Integrated Fixture	Embedded controls	\$50 per fixture	\$0.20/kWh Fixture savings \$0.28/kWh Control savings	LLLC	QPL	Component or Non-Integrated Fixture	Site-installed controls	\$25 per fixture	\$0.20/kWh Fixture savings \$0.28/kWh Control savings	Non-LLLC	QPL	All Fixture Types	Networked system	\$25 per fixture	\$0.28/kWh Control Savings	NLC	Non-QPL	All Fixture Types	Not DLC-listed	No bonus	\$0.28/kWh Control Savings
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<p>* If high-end trim is applied, use the high-trim wattage as input wattage vs. manufacturer full fixture wattage. Any fixture with manufactured wattage ≥ 20 watts but high-end trim < 20 watts pro-rates the fixture incentive (e.g., if high-end trim = 16 watts, the pro-rated fixture incentive is \$60).</p> <p>** TLED products are not eligible for the LLLC bonus incentives even if they are controlled by systems listed on the DLC's NLC QPL.</p>																																															
<p>Network Lighting Control projects require a site visit by an Energy Management Analyst before and after the installation for verification purposes. After the installation, EMAs will confirm control settings match the proposed Sequence of Operations (SOO) with an on-site technician. A Project Specific Specifications document will be attached to the Participation Agreement with detailed information about the project and additional close-out requirements.</p> <p>Checklist of required documentation for NLC projects:</p> <ul style="list-style-type: none"> <input type="checkbox"/> DLC listing of NLC system <input type="checkbox"/> DLC listing of fixtures used in NLC system (manufacturer full fixture wattage $\geq 20W$) <input type="checkbox"/> Sequence of operations (SOO) with a minimum of two (2) operational capabilities: <ol style="list-style-type: none"> 1) occupancy sensing (required on all NLC applications) 2) a minimum of one additional LLLC control capability is required at the discretion of the customer (e.g., <u>high- or low-trim wattage, daylight harvest</u>) <input type="checkbox"/> Proposed high- or low-trim wattage (if any) <input type="checkbox"/> On-site confirmation or screenshots showing NLC settings to confirm SOO <ul style="list-style-type: none"> fixture wattage or voltage, occupancy/daylight harvest settings, etc. <input type="checkbox"/> Site visit by EMA pre- and post-install 																																															

Other Lighting Specifications

Controls-Only Projects	<ul style="list-style-type: none"> Proposed controls-only projects receive a \$0.28/kWh saved incentive. If the project is non-LLLC, there is an additional \$25/controlled fixture bonus.
Fixture Removal	<ul style="list-style-type: none"> Incentives for fixture removal are only eligible within the context of a larger project (i.e., part of a retrofit project) and qualify for the energy savings incentive. To receive funding for Fixture Removal, the fixture must be completely removed from the premises, and the electrical wiring to the fixture removed from the source junction box.
Burned-Out Fixtures	<ul style="list-style-type: none"> If $\leq 10\%$ of the fixtures in each area (e.g., warehouse ceiling) are non-functional (flickering, pulsing, dead, etc.), all fixtures (including the 10%) are eligible for an incentive. If $> 10\%$ in each area are non-functional, the non-functional fixtures are not eligible for incentives.
Exterior Lighting Operating Hours	<ul style="list-style-type: none"> If fixtures are controlled by a <u>system timer</u>, City Light assumes 4380 hours in the incentive calculation. If fixtures are controlled by a <u>photocell</u>, City Light assumes 4873 hours.
Incandescent/Halogen Lamps & Fixtures	<ul style="list-style-type: none"> As of January 1, 2024: incandescent/halogen lamps & fixtures may no longer be used as the baseline condition in the incentive.

Other Lighting Specifications

Indoor Horticulture	<ul style="list-style-type: none"> City Light requires all products and equipment submitted for indoor horticulture projects to be listed on DLC's Indoor Horticulture Qualified Products List or meet all the criteria in the following DLC Hort v4.0 table: 																				
	<table border="1"> <thead> <tr> <th>Parameter/Attribute/Metric</th><th>Requirement</th><th>Method of Evaluation</th></tr> </thead> <tbody> <tr> <td>Photosynthetic Photon Efficacy (PPE)</td><td>$\geq 2.50 \mu\text{mol}/\text{J}$</td><td>LM-79</td></tr> <tr> <td>Photosynthetic Photon Flux Maintenance (PFMp) Q90</td><td>$\geq 36,000 \text{ hours}$</td><td>LM-80</td></tr> <tr> <td>Fixture warranty</td><td>5 years</td><td>Specification sheet</td></tr> <tr> <td>Power Factor</td><td>≥ 0.9</td><td>LM-79</td></tr> <tr> <td>Total Harmonic Distortion</td><td>$\leq 20\%$</td><td>LM-79</td></tr> <tr> <td>Safety Certification</td><td>Horticultural lighting designation (OSHA NRTL)</td><td>Specification sheet</td></tr> </tbody> </table>	Parameter/Attribute/Metric	Requirement	Method of Evaluation	Photosynthetic Photon Efficacy (PPE)	$\geq 2.50 \mu\text{mol}/\text{J}$	LM-79	Photosynthetic Photon Flux Maintenance (PFMp) Q90	$\geq 36,000 \text{ hours}$	LM-80	Fixture warranty	5 years	Specification sheet	Power Factor	≥ 0.9	LM-79	Total Harmonic Distortion	$\leq 20\%$	LM-79	Safety Certification	Horticultural lighting designation (OSHA NRTL)
Parameter/Attribute/Metric	Requirement	Method of Evaluation																			
Photosynthetic Photon Efficacy (PPE)	$\geq 2.50 \mu\text{mol}/\text{J}$	LM-79																			
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Total Harmonic Distortion	$\leq 20\%$	LM-79																			
Safety Certification	Horticultural lighting designation (OSHA NRTL)	Specification sheet																			
<ul style="list-style-type: none"> In addition to the required documentation for all standard lighting projects, indoor horticulture projects must also provide: <ul style="list-style-type: none"> Washington State Liquor and Cannabis Board (WSLCB) license Seattle/local Marijuana Regulatory Business License Seattle/local Business License Tax Certificate <ul style="list-style-type: none"> Cooling equipment description For change of use or new construction: a fixture spacing floor plan showing the layout and area of the lighting racks Tunable fixtures (any fixtures with variable wattage input) must use full input wattage to calculate incentive levels and energy savings. 																					

RETROFIT NON-LIGHTING PROJECTS

Measure	Specifications
All Non-Lighting Projects	<ul style="list-style-type: none"> City Light does not fund installation of used equipment or the replacement of failed equipment. Backup equipment is not eligible for funding. Backup equipment is defined as equipment that is redundant to the primary equipment and rarely operates. Equipment operating in a lead/lag configuration (alternating on/off sequence) is eligible for funding. Funding shall be based on the savings of the combined operating hours of each item. Savings are calculated based on AHRI-rated equipment efficiencies at full load and part load conditions. Full load efficiencies cannot be substituted for weighted average or seasonal efficiencies. Integrated Part Load Value (IPLV) will be used for standard conditions and Non-Standard Part Load Values will be used for non-standard conditions, and the two will not be interchangeable. If your project results in both gas and electric savings, you may be eligible for incentives from both City Light and PSE. Your total incentive from both utilities may not exceed 70% of the total project cost. You will need to apply separately to both utilities. City Light cannot currently incentivize gas to electric energy retrofit projects per state law. City Light can pay for electricity efficiency compared to standard practice/code or existing condition.
Baseline assumptions	<ul style="list-style-type: none"> In most cases, energy savings will be calculated using the Seattle Energy Code, Federal Code, or standard practice as the baseline condition for equipment replacement. Key exceptions are VSDs installed on equipment with remaining service life, HVAC controls, and electric resistance heating retrofit projects. Upgrades that involve several complex measures such as control projects, heat recovery, changing out large parts of a HVAC system, or whole building level changes may be eligible for custom incentives that use a pre and post evaluation as a basis for savings.

Measure	Specifications
Pumps, Fans, and Circulators	<ul style="list-style-type: none"> Installations of new clean water pumps \leq200 HP, fans and blowers, and ECM circulators \leq 3.5 HP are no longer eligible for funding as of February 1, 2021: <ol style="list-style-type: none"> <u>1-200 HP Clean water pumps</u> <ul style="list-style-type: none"> End suction frame mounted End suction close coupled Inline close coupled & split coupled Submersible vertical turbine Vertical multi-stage <u>Fans and Blowers $< 11.2\text{ kW}$</u> Electrically Commutated Motor (ECM) clean water circulator pumps. (Commercial is \leq3.5 HP, Residential any size)

<p>Variable Speed Drives on HVAC pumps and fans (e.g. converting constant speed to variable speed)</p>	<ul style="list-style-type: none"> Variable speed drives installed on constant speed pumps and fans, or new pumps or fans integrated VSDs are eligible for funding if there is remaining service life. Baseline energy consumption is calculated based on the existing equipment operation and the existing efficiency of the pump and/or fan. VSDs installations are NOT eligible for funding if required by code, <ul style="list-style-type: none"> Industrial process load VSDs are case-by-case and may be eligible.
<p>Variable Speed Drives on Air Handling Units (AHUs)</p> <p><i>Note: AHU includes both the supply and return fan.</i></p>	<ul style="list-style-type: none"> This measure is deemed per BPA implementation manual. Existing constant volume AHU must serve variable air volume (VAV) systems. Incentives shall be based on the total rounded HP that is controlled by the VSD. The new VSD shall have a screen or digital readout that indicates output frequency, current, voltage, power (kW), power factor and percent speed. If the VSD is connected to the building control system, the VSD must communicate kW and % speed as trendable data points. Existing flow control devices (e.g. fan inlet vanes, inlet cones, or outlet dampers) being replaced by a VSD shall be fixed in the open position or completely removed. VSD control status must be set to "auto." Post-installation, customer must demonstrate the fan speed varies below 80% for 1 hour based on zone conditions, via a weekly trend.

Measure	Specifications
<p>Chiller Plant Improvements</p>	<ul style="list-style-type: none"> 1:1 replacement of chillers is no longer eligible for funding as of January 1, 2022. Custom chiller plant improvements that include controls, process loads, heat recovery, and reconfigurations are eligible as a custom incentive.
<p>Dedicated Outdoor Air System</p>	<ul style="list-style-type: none"> Dedicated Outdoor Air System (DOAS) retrofits will be treated as a custom project. Very High Efficiency Dedicated Outdoor Air Systems shall meet NEEA's requirements at https://neea.org/our-work/very-high-efficiency-doas-requirements If DOAS is coupled with Variable Refrigerant Flow (VRF): <ul style="list-style-type: none"> Controls must lock out heating on VRF whenever free cooling is enabled. Heating setpoints should be well below free cooling setpoint. Heating/cooling system and HRV should be in unoccupied mode at night. Recommended heating setback of >10 degrees F, and cooling setback of >6 degrees. Heating and cooling fans shall be off whenever setpoint is met

Refrigeration equipment, Variable Refrigerant Flow (VRF), and heat pump equipment	<ul style="list-style-type: none"> • New refrigerated cases shall reference the Federal Energy Code §431.66 as the baseline energy consumption for the class and type of equipment of the existing case. • Retrofits of existing refrigerated cases shall reference the existing energy consumption as baseline. • Installer must have a refrigeration and air conditioning contractor's license. See Refrigeration Licensing code requirements at http://www.seattle.gov/sdci/codes/licensing-and-registration/refrigeration-licensing • VRF and heat pump retrofits must replace electric resistance heating or be a ground- or groundwater-source VRF, as of April 20, 2020.
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Heat Pump Water Heater Systems	<ul style="list-style-type: none"> • Must meet NEEA's Advanced Water Heating Specification 8.0, commercial only. Systems <=120 gallons not eligible. https://neea.org/our-work/advanced-water-heating-specification <p>Savings are custom calculated.</p>
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Measure	Specifications
Data Center and IT efficiency measures	<ul style="list-style-type: none"> • Data Center / IT measures are available for Commercial Customers only. • Uninterruptible Power Systems (UPS) ≥ 10 kVA may receive a \$0.23 per kWh incentive, smaller systems <10 kVA qualify for \$0.12 per kWh. • Plug load reduction shall use a custom calculation. Submetering may be required to determine the energy savings. • Computer Room Air Conditioners (CRACs) projects must incorporate efficiencies above code requirements, such as VSDs or Electronically Commutated Motors (ECM) motors and controls. • Air flow management energy savings shall use a custom calculator.
Other measures <i>(City Light will provide customers with additional requirements if they pursue these measures)</i>	<ul style="list-style-type: none"> • Process loads incentives should be for industrial customers only and are custom calculated. • HVAC controls upgrades (City Light will provide incentives based on the energy savings project cost portion only, not the full scope of the project). <ul style="list-style-type: none"> • If your building must comply with the City of Seattle's Tune Up ordinance, you may apply for Building Automation System controls improvement incentives 18 months prior to your required tune-up date.