Alberta Municipalities
Strength In Members

ELIGIBLE UPGRADES

For Commercial Property Owners in the Clean Energy Improvement Program

Raise your bottom line by investing in energy efficiency and renewable energy.

Installing any of these eligible upgrades can reduce the energy costs of your commercial property. You can save on utility costs and in many cases you could also see lowered maintenance costs.

Updated: January 5, 2023

Alberta Municipalities
Strength In Members

A DIFFERENT KIND OF FINANCING FOR RENOVATIONS THAT MAKE A DIFFERENCE.

The Clean Energy Improvement Program is available in participating Alberta municipalities. Not all municipalities offer the program for both commercial and residential property owners.

Check participating locations:

ceip.abmunis.ca/commercial

ceip.abmunis.ca/residential

ELIGIBLE UPGRADES FOR COMMERCIAL PROPERTY

Browse this listing to see what upgrades can qualify for financing and what is required when applying.

The following upgrades are *only* eligible for financing on *commercial property*.

Information for residential property owners is available at **myceip.ca/residential**

PLEASE READ CAREFULLY BEFORE PROCEEDING

Alberta Municipalities does not endorse any specific upgrade, product or service provided by any Qualified Contractor, and accepts no liability in the selection of materials, products, contractors or performance of workmanship.

Commercial property owners should review their ASHRAE Audit report to assess the energy savings potential for each upgrade they are considering installing and should discuss anticipated impacts of the upgrade(s) with their engineering consultant.

Alberta Municipalities is not liable for any direct or indirect loss, expense or cost (including without limitation, any consequential loss or economic loss) that you incur directly or indirectly as a result of, or in connection with, any advice, data, information, estimates, projections, forecasts or forward-looking statements in any way connected to such estimates, projections, forecasts or forward-looking statements.

The Effective Useful Life (EUL) is the average time in years where the upgrade is expected to result in energy savings and is provided for each upgrade listed in this document.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
AIR CURTAINS An air curtain is a fan-powered device that creates an invisible air barrier over the doorway to efficiently separate two different environments, without limiting the access of people or vehicles through overhead doors. ***Effective Useful Life: 15 years***	• The air curtain is designed for commercial and industrial applications and must be certified to the ANSI/AMCA 220 standard. The air curtain must be installed where there is an overhead door opening without an existing or less efficient curtain. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and ANSI/AMCA 220 certification.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property.
AIR INFILTRATION, SEALING, AND PRESSURIZATION Air infiltration, sealing and pressurization reduce the amount of air that leaks in and out of the building. It is a cost-effective way to cut heating and cooling energy consumption, increase comfort, and create a healthier indoor environment. ***Effective Useful Life: 15 years***	• The area requiring sealing or pressurization correction must be indicated in the energy audit. • This upgrade must be installed by a Qualified Contractor and cannot be completed by the participant. • Equipment can include caulking windows, outlets, doors, weatherstripping, door dock seals, air and vapour barriers, ceiling joist sealing, and other industry-recognized methods of air sealing. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the materials to be installed, location they will be installed, quantity, size (if applicable), R- or U-value (if applicable), make and model number(s) (if applicable), and costs of materials and installation.	• A contractor invoice itemizing the materials installed, location they are installed, quantity, size (if applicable), R- or U-value (if applicable), make and model number(s), and costs of materials and installation. • Photos of the installation(s)—a sample of the upgrade installed in each room is required.
ENERGY-EFFICIENT WINDOW Windows with low-e glazing increase airtightness and reduce heat loss and gain through the window. This reduces the load on the heating and/or cooling system and improves energy efficiency in both summer and winter. This upgrade can also improve airtightness. ***Effective Useful Life: 15 years***	• The window must be ENERGY STAR certified to the most recently published version. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirement**: • Low-e/triple glazing windows' thermal transmittance (U-value) must be less than 0.30.	• A contractor quote itemizing the window type to be installed, quantity, size, U-factor, make and model number(s), and costs of equipment and installation. • Window specification sheet(s) confirming equipment details and ENERGY STAR certification.	• A contractor invoice itemizing window type(s) installed, quantity, size, U-factor, make and model number(s), installation date, and final costs of equipment and installation. • Photo(s) of the window(s) installed on the property with the original ENERGY STAR label still attached and clearly visible/legible in the photo(s).

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
BUILDING AUTOMATION SYSTEM UPGRADE A building automation system is the centralized control of a building's heating, ventilation and air conditioning, lighting, and other systems by building operators. It enables optimum control of building systems to meet occupant needs. ***Effective Useful Life: 15 years***	• The upgraded building automation system (BAS) may consist of a network of Building Controllers (BC), Advanced Application Controllers (AAC), Application Specific Controllers (ASC), and Smart Actuators (SA). Every device in the system that executes control logic and directly controls HVAC equipment must conform to a standard BACnet Device profile as specified in ANSI/ASHRAE 135-2004, BACnet Annex L. • This upgrade may include new, replacement and/or optimization with a BAS technician (as per the energy audit). • Network integrated smart or communicating thermostats are eligible under this upgrade. • Hardwired actuators and sensors may be used in lieu of BACnet Smart Actuators and Smart Sensors. • Not Eligible: New pneumatic control. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • A description of the project to be financed from the energy audit. • If the participant is requesting to finance the optimization of the existing BAS system according to the energy audit, a quote for the BAS technician must be included. • Equipment specification sheet(s) for any equipment to be financed confirming equipment details and ANSI/ASHRAE 125-200, BACnet Annex L certification.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • If financing was approved for the BAS system to be optimized, an invoice for the BAS technician must be included. • Photos of the installation(s)—a sample of the upgrade may be sufficient. (E.g., New controllers, new workstation or graphics, new linked thermostats, etc.)
INSULATION Insulation is used to slow the transfer of heat from inside and outside of the building. Insulation may be added to the roof, walls, and other components of the building envelope. The insulation reduces heating and cooling energy consumption. ***Effective Useful Life: 20 years***	• For walls: minimum R value of layers after adding new insulation must be equal to or greater than 20. • For ceiling/attic: minimum R value of layers after added new insulation must be equal to or greater than 30. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the insulation brand and type, method of installation, location amount (square metres or feet) and R-value of the existing and new insulation, per cent of the total area covered, and costs of material and installation. • Material specification sheet(s) confirming product details.	• A contractor invoice itemizing the insulation brand and type, method of installation, location, amount (square metres or feet) and R-value added, per cent of the total area covered, installation date, and costs of material and installation. • Photos of installed insulation, with R-value marking and thickness measurement, before being sealed in behind drywall or panelling.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
DEMAND CONTROL KITCHEN VENTILATION (DCKV) Demand control kitchen ventilation uses advanced sensors and variable-frequency drives to detect temperature levels, vapour and smoke, adjusting the airflow to respond to real-time energy and ventilation needs. This reduces energy use and saves money. ***Effective Useful Life: 15 years***	• The equipment must be installed in a dedicated commercial kitchen, with an exhaust hood and rooftop unit or make-up air system. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • Photos of the equipment installed on the property.

Heating, Ventilation and Air Conditioning (HVAC)

Updated: January 5, 2023

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
ADVANCED ROOFTOP UNIT CONTROLS Advanced rooftop unit (RTU) controls are a combination of demand control ventilation and variable frequency drive installed on a single-zone, packaged rooftop unit. ***Effective Useful Life: 10 years***	• The existing unit must be a single-zone, packaged HVAC unit without demand-controlled ventilation controls and lacking supply-fan speed control via a variable frequency drive. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property.
BOILER AND HEATER CONTROLS Advanced control systems can be retrofitted onto existing boilers to improve the efficiency of commercial heating systems. This upgrade includes modulating boiler burner and boiler vent damper controls. ***Effective Useful Life: 21 years***	• Existing unit is a boiler without advanced controls (modulating burner and vent damper controls). • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property.
BOILER ECONOMIZER Boiler or stack economizers are designed to recover heat from hot boiler flue gasses. Recovered heat is used to preheat boiler feed water. This upgrade includes economizers installed on process boilers and space heating boilers (exhaust stack). ***Effective Useful Life: 15 years***	• Must be installed on a boiler without an economizer. • Not Eligible: Non-condensing economizers. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible.

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DEMAND CONTROL BUILDING VENTILATION Demand control building ventilation consists of controls that adjust heating and ventilation air rates based on occupancy using sensor technologies. Sensor technologies include those that sense carbon dioxide levels and room occupancy. ***Effective Useful Life: 10 years***	• Must be installed in a single-zone, constant volume HVAC system that does not have heat recovery and be compliant with ASHRAE 62.1. • Only for new installation of sensors (adding new sensors) for previously non-controlled ventilation. • System must have output capacity of greater than or equal to 3 tons or 36,000 BTU/h. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirement:** • Upgrade is eligible only for the following building types: grocery, elementary schools, high schools, universities and colleges, retail department stores, and retail strip malls.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
DESTRATIFICATION FAN Heat introduced into a space with high ceilings forms temperature layers or strata, with warm air rising to the ceiling. A destratification fan circulates heated air to ground level and reduces the heating load. ***Effective Useful Life: 10 years***	• Must be installed in buildings that have space heating. • Minimum fan diameter of 20 feet. • Minimum ceiling height of 20 feet. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property.

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ENERGY/HEAT RECOVERY VENTILATOR Energy or heat recovery ventilators (HRV/ERV) use heat or enthalpy exchangers to heat or cool incoming fresh air, recapturing the sensible heat from the exhaust air that would be otherwise lost to the outside. ***Effective Useful Life: 15 years***	• HRV system must have sensible effectiveness greater than or equal to 70% at 32°F (ERV = 80% at 32°F) for spaces with no HRV/ERV. • Must be addition of HRV/ERV on existing air side equipment. • System shall be designed and operated such that the zone is ventilated in compliance with ASHRAE 62.1. • Not Eligible: Systems in which Demand Controlled Ventilation or scheduled setbacks are used during operating hours and spaces where 100% of the exhaust air must be evacuated from the building in order to avoid cross-contamination. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirements:** • HRV: must be used for HVAC or process exhaust air systems above 72°F. • ERV: must be gas-fired heated air systems.	• Equipment specification sheets confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible.
HIGH-EFFICIENCY ROOFTOP UNIT OR MAKE UP AIR UNIT Direct or indirect gas-fired rooftop or make up air units ensure outdoor air is conditioned and distributed within the ductwork of a building. ***Effective Useful Life: 15 years***	• Must be a high-efficiency condensing rooftop or make up air unit that uses 100% outside air. It must have a thermal efficiency greater or equal to 90%. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.

Heating, Ventilation and Air Conditioning (HVAC)

Updated: January 5, 2023

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form

HIGH-EFFICIENCY BOILER
A high-efficiency condensing boiler extracts the maximum amount of heat from burning natural gas or propane by using condensing technology. This means heat from condensing water in the exhaust is extracted and used in addition to heat from regular combustion.
Effective Useful Life: 25 years
	• Boiler must be fueled by natural or propane gas and replace a less efficient boiler.
	• Not Eligible: Steam boilers and oil-fired models
	• 300,000 BTU/h or less:
	  • Annual fuel utilization efficiency (AFUE): greater than or equal to 95%
	  • ENERGY STAR certified
	• 300,001 BTU/h or more:
	  • Thermal efficiency: greater than or equal to 93%
	  • Must be certified to CSA 4.9/ANSI Z21.13 standard for gas-fired low pressure steam and hot water boilers
	• Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year.
	• Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.
		• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation.
		• Equipment specification sheet(s) confirming equipment details and AHRI or ENERGY STAR and CSA-4.9/ANSI Z21.13 certification.
			• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation.
			• A photo of the equipment installed on the property.
			• Photo(s) of the equipment nameplate label (including model and serial number), with all information legible.

HIGH-EFFICIENCY PACKAGED COOLING Packaged cooling units are self-contained space conditioning equipment that deliver cooling to specific indoor spaces. Some units are split into outside and indoor modules. Packaged terminal air conditioners (PTAC) and condensing units are included in this upgrade. ***Effective Useful Life: 15 years***	• Equipment must meet minimum efficiency (SEER or IEER or EER) standards as per ASHRAE 90.1. Equipment must be a high-efficiency model not a standard model. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and efficiency requirements.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
HIGH-EFFICIENCY CHILLERS - AIR COOLED High-efficiency electric air-cooled chillers can remove more heat using less electricity than a standard efficiency unit as part of a comprehensive HVAC system. ***Effective Useful Life: 23 years***	• The chiller meets minimum efficiency standards as per the most recent edition of ASHRAE 90.1 Standard Table 6.8.1-3 requirements for Path A or Path B efficiency. • Efficiency rating must be based on AHRI 550/590 (IP) for IPLV conditions and not full load conditions. • Refrigerant to comply with all applicable codes and authorities having jurisdiction. • Must be for primary use and not back up. • Not Eligible: New reciprocating chillers. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and minimum efficiency standards (ASHRAE 90.1 Table 6.8.1-3).	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible.
HIGH-EFFICIENCY CHILLERS - WATER COOLED CENTRIFUGAL High-efficiency electric water-cooled chillers can remove more heat using less electricity than a standard efficiency unit as part of a comprehensive HVAC system. This upgrade includes chillers used for cooling and process chillers. ***Effective Useful Life: 23 years***	• The chiller meets minimum efficiency standards as per ASHRAE 90.1 Standard 2016 Table 6.8.1-3 requirements for Path A or Path B efficiency. • Efficiency rating must be based on AHRI 550/590 (IP) for IPLV conditions and not full load conditions. • Refrigerant to comply with all applicable codes and authorities having jurisdiction. • Must be for primary use and not back up. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and minimum efficiency standards (ASHRAE 90.1 Table 6.8.1-3).	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible.

Heating, Ventilation and Air Conditioning (HVAC)

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Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
HIGH-EFFICIENCY CHILLERS - WATER COOLED POSITIVE DISPLACEMENT High-efficiency electric water-cooled chillers can remove more heat using less electricity than a standard efficiency unit as part of a comprehensive HVAC system. This upgrade includes chillers used for cooling and process chillers. ***Effective Useful Life: 23 years***	• The chiller meets minimum efficiency standards as per ASHRAE 90.1 Standard 2016 Table 6.8.1-3 requirements for Path A or Path B efficiency. • Efficiency rating must be based on AHRI 550/590 (IP) for IPLV conditions and not full load conditions. • Refrigerant to comply with all applicable codes and authorities having jurisdiction. • Must be for primary use and not back up. • Not Eligible: New reciprocating chillers. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and minimum efficiency standards (ASHRAE 90.1 Table 6.8.1-3).	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible.

HIGH-EFFICIENCY FURNACE
A high-efficiency gas furnace extracts the maximum amount of heat from burning natural gas or propane by using condensing technology. This means heat from condensing water in the exhaust is extracted and used in addition to heat from regular combustion.
Effective Useful Life: 17 years
	• Equipment must be fueled by natural gas or propane gas and replacing a less efficient furnace.
	• Not Eligible: Oil-fired models.
	• 300,000 BTU/h or less:
	  • Annual fuel utilization efficiency (AFUE): greater than or equal to 96%
	  • ENERGY STAR certified
	• Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year.
	• Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.
		• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation.
		• Equipment specification sheet(s) confirming equipment details and ENERGY STAR certification.
			• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation.
			• A photo of the equipment installed on the property.
			• A photo of the equipment nameplate label (including model and serial number), with all information legible.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
AIR SOURCE HEAT PUMP (DUCTLESS MINI-SPLIT) A heat pump is a year-round space conditioning system that provides heating and cooling. An air-source heat pump moves heat energy from inside to outside in the summer and outside to inside in the winter. Ductless mini-split heat pumps use refrigerant lines to distribute heat from the outside unit to the indoor unit. ***Effective Useful Life: 15 years***	• Must meet Consortium for Energy Efficiency (CEE) Tier 1, 2 or Advanced Tier requirements for Unitary and Multi-split Air Conditioner and Heat Pumps. • Meet Northeast Energy Efficiency Partnerships, Inc (NEEP) Cold Climate Air Source Heat Pump (ccASHP) Specification V3.0 or latest, if <65k BTU/h at 47°F (dry bulb). • Must be rated as cold climate heat pump. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirement:** • Ductless mini-split heat pump must replace either electric resistance heating, oil or propane heating base heating, or natural gas base heating.	• A contractor quote itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), capacity in kBTU/hour, and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and CEE Tier requirements.	• A contractor invoice itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), capacity in kBTU/hour, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.
AIR SOURCE HEAT PUMP (DUCTED) A heat pump is a year-round electric space conditioning system that provides both heating and cooling from a single piece of equipment that is centrally ducted. An air-source heat pump moves heat energy from inside to outside in the summer and outside to inside in the winter. This includes air-to-air heat pumps and air-to-water heat pumps. ***Effective Useful Life: 15 years***	• Must meet Consortium for Energy Efficiency (CEE) Tier 1, 2 or Advanced Tier requirements for Unitary and Multi-split Air Conditioner and Heat Pumps. • Meet Northeast Energy Efficiency Partnerships, Inc (NEEP) Cold Climate Air Source Heat Pump (ccASHP) Specification V3.0 or latest, if <65k BTU/h at 47°F (dry bulb) • Must be rated as cold climate heat pump. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirement:** • Centrally ducted heat pump must replace either electric furnace heating, oil or propane heating, or natural gas heating	• A contractor quote itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), capacity in kBTU/hour, and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and CEE Tier requirements.	• A contractor invoice itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), capacity in kBTU/hour, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.

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GROUND SOURCE HEAT PUMP A ground source heat pump is a year-round space conditioning system that provides heating and cooling. The heat pump moves heat from the ground to inside air in the winter and from inside air to the ground in the summer. ***Effective Useful Life: 16 years***	• All heat must be used within the facility. • The ground source heat pump must use ground or groundwater for geothermal exchange. • The ground source heat pump must be ENERGY STAR certified to the most recently published version (if possible), satisfy CSA Standard C448, and must be installed by an IGSHPA certified installer. • System design must be approved by a Professional Engineer licensed in Alberta who is accredited as a Certified Geo Exchange Designer by the International Ground Source Heat Pump Association or equivalent. • Must be rated as cold climate heat pump. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirement:** • Ground source heat pump must fall into one of the following categories: electric furnace/boiler replacement, oil or propane heating replacement, or natural gas replacement.	• A contractor quote itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), capacity in kBTU/hour, and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and ENERGY STAR certification (if possible). • Documentation from the Qualified Contractor confirming that the installer is IGSHPA certified, the system meets CSA Standard C448, and the required heating load is met.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), capacity in kBTU/hour, installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.
HIGH-EFFICIENCY UNIT HEATER High-efficiency unit heaters extract the maximum amount of heat from burning natural gas by using condensing technology. This means heat from condensing water in the exhaust is extracted in addition to regular combustion. ***Effective Useful Life: 12 years***	• Unit heater must be included on the NRCan energy efficient products list, use condensing technology, have a thermal efficiency greater than the existing heater (existing efficiency can be estimated in the energy audit) and be fueled by natural gas. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible—a sample of the upgrade may be sufficient.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
HOTEL/MOTEL GUEST ROOM OCCUPANCY SENSOR Occupancy sensors in hotel rooms can sense when a guest is not in the room (either with a key or motion sensor) and deactivate power to the HVAC and lighting, saving energy. ***Effective Useful Life: 15 years***	• Equipment must reduce energy use when guest is not in the room. Eligible for Packaged Terminal Air Conditioners (PTAC) with gas or PTAC with electric resistance. Occupancy detector must be either a keycard or infrared/motion sensing, and installed in a hotel or motel building. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
PIPE AND DUCT INSULATION Duct and pipe insulation ensures minimal heat is lost before the air or fluid is delivered to the space it is conditioning. Pipe insulation is installed using fiberglass, foam, calcium silicate or other types of insulation. ***Effective Useful Life: 15 years***	• Indoor piping must have at least 1" of insulation (or equivalent R-value of at least R2.5) and outdoor piping must have at least 2" of insulation (or equivalent R-value) and include an all-weather protective jacket. Insulation must be continuous and contiguous over fittings that directly connect to straight pipe, including elbows and tees. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. Must include the type and quantity of insulation and related materials to be installed, R-Value of new insulation, and thickness of new insulation. • Material specification sheet(s) confirming product details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • Must include the type and quantity of insulation and related materials installed, R-Value of installed insulation, and thickness of installed insulation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.

Heating, Ventilation and Air Conditioning (HVAC)

Updated: January 5, 2023

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
SMART THERMOSTAT Smart or programmable thermostats are used to reduce cooling and heating energy consumption through a configurable and automatically adjusting schedule of temperature setpoints (like a programmable thermostat). These thermostats allow the HVAC system to better match run times and occupant comfort needs. ***Effective Useful Life: 11 years***	• Must replace a manual-only thermostat and be ENERGY STAR certified to the most recently published version. • This upgrade is for a single replacement of a manual thermostat with a smart or programmable thermostat. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. • Not a standalone upgrade. Must be bundled with other HVAC upgrades to be eligible.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and ENERGY STAR certification.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property.
TRANSPIRED AIR COLLECTOR SYSTEMS Using solar energy to preheat incoming air reduces the load on the heating system. A dark-colored façade is placed on the south wall of the intake duct. The façade absorbs solar energy and transfers it to the untreated air. ***Effective Useful Life: 20 years***	• Solar collector must pre-heat incoming air and be installed on a south-facing wall. • Azimuth of the technology should not deviate more than 110° off from true south. • Make-up air unit must be natural gas fired. • Technology installed must be whole system (include collectors, controls and connections). • Collectors must be certified by the SRCC. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and SRCC Performance Data Sheet (SRCC OG-100 Certification).	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
ICE RINK FLOOR WATER DEAERATORS Ice rink floor water deaerators are used for commercial arenas to eliminate the need for hot water when building and resurfacing the ice. ***Effective Useful Life: 25 years***	• There must be no existing ice rink floor water deaerator used in the rink. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible.
HIGH-EFFICIENCY PUMP Commercial buildings with chiller or boiler systems require pumps to move fluid to different equipment throughout the building. ***Effective Useful Life: 15 years***	• Domestic hot water booster pumps are eligible for this upgrade. • Primary and secondary pumps are eligible for this upgrade. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible—a sample of the upgrade may be sufficient.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
BAY FIXTURE AND RETROFIT KIT Bay fixtures and retrofit kits include various LED lighting fixtures that replace less energy efficient lighting. ***Effective Useful Life: 9 years***	• The equipment must include Design Lights Consortium (DLC) certified indoor low-, medium-, and high-bay lighting fixtures and retrofit kits. Replacement fixtures are standard bay LED lighting fixtures and must replace fluorescent, halogen, high-pressure sodium, and/or incandescent bay fixtures.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show the existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details and DLC certification.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show the existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
DOWNLIGHT FIXTURE AND RETROFIT KIT Downlight fixtures and retrofit kits include various LED lighting fixtures that replace less energy efficient lighting. ***Effective Useful Life: 9 years***	• The equipment must be Design Lights Consortium (DLC) certified. Eligible lighting types include downlight recessed, downlight solid-state retrofit, downlight pendant or downlight surface mount or linear fixture and must replace fluorescent, halogen, and/or incandescent fixtures. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show the existing and retrofit fixture type, quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details and DLC certification.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show the existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
HORTICULTURE LED GROW LIGHT FIXTURE LED grow lights that are installed within a canopy to illuminate a growing surface. ***Effective Useful Life: 9 years***	• The equipment must be ENERGY STAR certified to the most recently published version, meet CEE requirements, or be Design Lights Consortium (DLC) certified and must replace fluorescent, halogen, and/or incandescent fixtures. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details and DLC and/or ENERGY STAR certification and/or CEE requirements.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.

• Note: LED lamps of any kind are ineligible for financing.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
INDOOR LIGHTING CONTROL Indoor lighting controls include daylight, occupancy, integrated occupancy, and dual (occupancy and daylight) controls. These may be wall, remote, fixture and/or switch mounted. ***Effective Useful Life: 8 years***	• Daylight controls must vary the light output based on the level of sunlight received. • Not a standalone upgrade. Must be bundled with other Lighting upgrades to be eligible. • Not Eligible: Sensors with "manual on override" that can disable the automatic off feature. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirements:** • For integrated occupancy (including dual) and daylight control: must control fixture with greater than 5,000 lumens of load (after retrofit project). • For occupancy, wall or fixture-mounted control: must control minimum of 60W or 7,000 lumens of load (after retrofit project). • For occupancy, remote or wall-mounted control: must control minimum of 150W or 15,000 lumens of load (after retrofit project). • For daylight sensors, fixture, remote or wall-mounted control: must control minimum of 60W or 7,000 lumens of load (after retrofit project).	• A contractor quote itemizing the equipment to be installed, quantity, equipment make and model number(s), and costs of equipment and installation. . • Equipment specification sheet(s) confirming equipment details and DLC certification.	• A contractor invoice itemizing the installed equipment, quantity, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.

• Note: LED lamps of any kind are ineligible for financing.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
LED ACCENT/TRACK LIGHTING Accent and/or track lighting fixtures include LED lighting fixtures that replace less energy efficient lighting. ***Effective Useful Life: 15 years***	• The equipment must be ENERGY STAR certified to the most recently published version, meet CEE requirements, or be Design Lights Consortium (DLC) certified and must replace fluorescent, halogen, and/or incandescent fixtures. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details and DLC and/or ENERGY STAR certification and/or CEE requirements.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show existing and retrofit fixture type, quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
LED DISPLAY CASE AND UNDER CABINET LIGHTING Display cases and/or under cabinet lighting fixtures include LED lighting fixtures that replace less energy efficient lighting. ***Effective Useful Life: 15 years***	• The equipment must be ENERGY STAR certified to the most recently published version, meet CEE requirements, or be Design Lights Consortium (DLC) certified and must replace fluorescent and/or incandescent under cabinet lighting in a shelf that is permanently affixed to the building. • Not Eligible: Retrofit kits. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details and DLC and/or ENERGY STAR certification and/or CEE requirements.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
LED EXIT SIGN This lighting upgrade consists of LED-equipped emergency exit signs that replace incandescent exit signs. ***Effective Useful Life: 5 years***	• The equipment must be an LED exit sign with a wattage of less than or equal to 5 watts and must replace fluorescent, halogen, and/or incandescent exit signs. The equipment must be listed under Standard C22.2 No. 141-15. • Not Eligible: Retrofit kits and screw-in lamps. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.

• Note: LED lamps of any kind are ineligible for financing.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
LED WALL-WASH LIGHTING FIXTURE AND RETROFIT KIT Wall-wash fixtures and retrofit kits include various LED lighting fixtures that replace less energy efficient lighting. ***Effective Useful Life: 15 years***	• The equipment must be ENERGY STAR certified to the most recently published version, or meet CEE requirements, or be Design Lights Consortium (DLC) certified and must replace fluorescent, halogen, and/or incandescent wall-wash fixtures. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details and DLC and/or ENERGY STAR certification and/or CEE requirements.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
OUTDOOR LED FIXTURE AND RETROFIT KIT Outdoor LED lighting fixture equivalents replace previous outdoor lighting fixtures, including troffers, wall packs and luminaires (e.g., canopy, wall, pole- and arm-mounted, parking and passageway luminaires). ***Effective Useful Life: 15 years***	• The equipment must be ENERGY STAR certified to the most recently published version, meet CEE requirements, or be Design Lights Consortium (DLC) certified and must replace high-pressure sodium, fluorescent, halogen, and/or incandescent fixtures. • Not Eligible: Wall-mounted, canopy or specialty categories not stated above. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details and DLC and/or ENERGY STAR certification and/or CEE requirements.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.

• Note: LED lamps of any kind are ineligible for financing.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
OUTDOOR LIGHTING CONTROL Outdoor lighting controls can switch outdoor lighting on or off based on motion detection and daylight. These include bi-level lighting controls, exterior photocells, and exterior occupancy sensors. ***Effective Useful Life: 8 years***	• Daylight controls must vary the light output based on the level of sunlight received. • Not a standalone upgrade. Must be bundled with other Lighting upgrades to be eligible. • Not Eligible: Sensors with "manual on override" that can disable the automatic off feature. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirement:** • Exterior occupancy sensors: must control a minimum of 45W or 5,000 lumens of load (after retrofit project).	• A contractor quote itemizing the equipment to be installed, quantity, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and DLC certification.	• A contractor invoice itemizing the installed equipment, quantity, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
TROFFER FIXTURE AND RETROFIT KIT Retrofit kits replace the fluorescent lamps and other luminaire components of an existing troffer lighting fixture (e.g., T12, 2 lamp fluorescent tubes) with LED lighting technology. ***Effective Useful Life: 15 years***	• The equipment must be a Design Lights Consortium (DLC) certified indoor troffer fixture or retrofit kit including 1x2, 2x2, 1x4 and 2x4 fixtures and must replace fluorescent, halogen, and/or incandescent troffer fixtures. • Not Eligible: LED lamps (i.e. LED tubes) of any kind. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. The quote must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • Equipment specification sheet(s) confirming equipment details and DLC certification.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. The invoice must show existing and retrofit fixture type(s), quantity, existing watts, and retrofit watts. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.

• Note: LED lamps of any kind are ineligible for financing.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
ELECTRICALLY COMMUTATED MOTOR (ECM) FOR HVAC FANS Electrically commutated motors (ECM) are DC synchronous motors that require less power to operate than typical AC motors. ECM motors can be used to increase overall system efficiency in HVAC fans. This upgrade also applies to fans used in farm applications for heating, ventilation, and cooling. ***Effective Useful Life: 15 years***	• Equipment must meet NEMA Premium efficiency guidelines. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and efficiency meets NEMA Premium efficiency guidelines.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible—a sample of the upgrade may be sufficient.
MOTOR BELT RETROFITS There is typically a V-belt between the motor and the supply air fan and/or return air fan in HVAC units. Notched and synchronous V-belts have grooves or notches that reduce bending resistance of the belt and increase efficiency compared to smooth v-belts. ***Effective Useful Life: 5 years***	• Notched or synchronous V-belt must replace a smooth V-belt and must be used in a HVAC application. • Not Eligible: Replacement of a notched belt. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be replaced and installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient.
OPEN DRIP PROOF (OPD) MOTORS Open Drip Proof (ODP) motors typically run cooler and do not overheat since the chamber is open. These are used in indoor industrial settings. ***Effective Useful Life: 15 years***	• Equipment must meet NEMA Premium efficiency guidelines and be used in a HVAC application. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and efficiency meets NEMA Premium efficiency guidelines.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible—a sample of the upgrade may be sufficient.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
TOTALLY ENCLOSED FAN-COOLED (TEFC) MOTORS Totally Enclosed Fan-Cooled (TEFC) motors have closed chambers that require external fans to blow air over them to cool. These motors are protected from the outside environments and are typically used in outdoor or wet industrial settings. ***Effective Useful Life: 15 years***	• Equipment must meet NEMA Premium efficiency guidelines and be used in a HVAC application. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and efficiency meets NEMA Premium efficiency guidelines.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible—a sample of the upgrade may be sufficient.
VARIABLE SPEED DRIVE FOR PUMPS Variable frequency/speed drives can adjust the flow of water in chilled and hot water pumps. Adjusting flow by slowing the pump reduces the motor load and saves electricity. ***Effective Useful Life: 15 years***	• Must be a variable speed drive installed for chilled water or hot water pumps in HVAC applications. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirement:** • Annual operating hours of at least 2,000 hours/year. • Not Eligible: Constant torque or horsepower loads.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible—a sample of the upgrade may be sufficient.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
VARIABLE SPEED DRIVE FOR COOLING TOWER FANS Variable frequency/speed drives can adjust the speed of cooling tower fans. Adjusting air flow by slowing the fan reduces the motor load and saves electricity. ***Effective Useful Life: 15 years***	• Must be a variable speed drive installed for HVAC cooling tower fan applications. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible—a sample of the upgrade may be sufficient.
VARIABLE SPEED DRIVE FOR HVAC FANS Variable frequency/speed drives can adjust the flow of air in HVAC fans (ie. supply, return, exhaust). Adjusting air flow by slowing the fan reduces the motor load and saves electricity. ***Effective Useful Life: 15 years***	• Must be a variable speed drive installed for HVAC fans (e.g., supply, return, and exhaust fans are eligible). • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year. **City of Edmonton additional requirements:** • Annual operating hours of at least 2,000 hours/year. • Not Eligible: Constant torque or horsepower loads, installation on fans with forward curved inlet guide vanes.	• A contractor quote itemizing the equipment to be installed, equipment make and model number(s), and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installation date, and costs of equipment and installation. • A photo of the equipment installed on the property—a sample of the upgrade may be sufficient. • Photo(s) of the equipment nameplate label (including model and serial number), with all information legible—a sample of the upgrade may be sufficient.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form

SOLAR PV SYSTEM
Solar photovoltaic (PV) systems convert solar energy into electricity for use by the building. The system components work together to optimize electricity generation from the sun, providing renewable electricity for both the building they are connected to and the grid.
 	
Effective Useful Life: 25 years
	• All solar PV systems are grid-connected and compliant with the latest version of the Government of Alberta's Micro-generation Regulation (AR27/2008) and amendments.
	• All PV system components must be Canadian Standards Association (CSA) or UL certified for use in Canada.
	• All components must be new and not previously used in an energized solar PV system.
	• Projects sized greater than 150 kW AC or classified as "large micro-generation" by the most recently published Micro-generation Regulation require operating procedures at the time of installation. For purposes of sizing, the rated output capacity is defined as the combined storage and solar PV system output.
	• A building assessment must be completed to confirm that the building can support the added weight of the proposed system.
	• Warranty periods, from the time of installation, must be, at minimum, the following:
	  • Modules: 25-year power performance and 10-year manufacturing warranties;
	  • Inverter bank and any related PV module optimisers: 10-year manufacturing warranty.
	• Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.
		• A contractor quote itemizing the equipment to be installed, make and model number(s), proposed system size (kW DC), proposed annual generation (kWh AC), and costs of equipment, system design/ development, and installation.
		• Documentation that includes the name of the property's electricity retailer and site ID (13-digit number on the electricity bill).
		• Equipment specification sheet(s) confirming equipment details and warranties.
		• A copy of a sealed letter from an engineer licensed with APEGA confirming that the building can support the added weight of the proposed system.
			• A contractor invoice itemizing the installed equipment, make and model number(s), installed system size (kW DC), installation date, and costs of equipment, system design/ development, and installation.
			• A copy of the "Interconnection and Operating Agreement."
			• A copy of the site plan and single line diagram.
			• If the system is greater than 150 kW AC in size (or classified as a "large micro-generation" by the most recently published Micro-generation Regulation): a copy of the system's operating procedures.
			• Photos of the fully installed solar PV array, with all modules visible and a photo of the inverter(s) installed on the property.
			• Photos of the inverter and module nameplate labels, with all information legible.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
BATTERY ENERGY STORAGE Battery energy storage systems enable the storage of solar electricity generated on the property, which may be used at a later point in time. ***Effective Useful Life: 10 years***	• Battery energy storage is eligible only when installed with a new grid-tied solar PV system and used to store energy from the solar PV system. All components must be CSA certified for use in Canada and warranty period(s) must be a minimum of 10 years, guaranteeing 60% or more of installed storage capacity during the period(s). • The upgrade must be a new lithium-ion battery. • When battery storage is included with solar PV, this combination is considered a single upgrade. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the cost of equipment to be installed, equipment make and model number(s), size/capacity, and costs of equipment, system design/development, and installation. • Specification sheet(s) confirming equipment details. • A single line diagram for the project, demonstrating how the battery energy storage will be integrated into the solar PV array.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), size/capacity, installation date, and costs of equipment and installation. • A copy of the Interconnection and Operating Agreement signed between micro-generation owner and the wire service provider for the solar PV system connected to the battery energy storage. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label, with all information legible.
SOLAR THERMAL WATER HEATING Solar thermal water heating includes thermal tubes or flat plate collectors that capture solar energy and use it to heat water. This may be used for domestic hot water and space heating. ***Effective Useful Life: 15 years***	• All solar thermal collectors must be CSA or UL certified. Solar thermal system components must have a minimum warranty period of 5 years. • The system must replace or supplement an existing hot water heating system. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, type of collectors and system, make and model number(s), proposed system size, and proposed annual heat generation. • A copy of the proposed site plan and system design schematic. • Equipment specification sheet(s) confirming equipment details and CSA Compliance.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), installed system size, installation date, and costs of equipment and installation. • A copy of the final system schematic (P&ID). • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
DRAIN WATER HEAT RECOVERY Drain water heat recovery transfers heat from the shower drain water to warm the cold supply water before it goes into the water heater. ***Effective Useful Life: 20 years***	• The drain water heat recovery equipment must be listed in the NRCan list of drain-water heat recovery equipment. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, efficiency specification, equipment make and model number(s), size, and costs of equipment and installation. • Specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), size, installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.
TANKLESS GAS WATER HEATER Tankless (also called instantaneous or on-demand) water heaters supply domestic hot water without using a storage tank. The tankless system avoids heat loss from water stored in a tank that must be regularly re-heated to maintain a safe water temperature. ***Effective Useful Life: 20 years***	• The equipment must be ENERGY STAR certified to the most recently published version, fueled by natural gas or propane, with minimum 90% thermal efficiency, and have 75,000 BTU/h or more. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), size/capacity, and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and ENERGY STAR certification.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), size/capacity, installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.
HIGH-EFFICIENCY STORAGE WATER HEATER High-efficiency storage (tank-based) water heaters extract the maximum amount of heat from burning natural gas by using condensing technology. This means heat from condensing water in the exhaust is extracted in addition to regular combustion. ***Effective Useful Life: 15 years***	• The storage water heater must be ENERGY STAR certified to the most recently published version, have a thermal efficiency greater than or equal to 95%, and be fueled by natural gas or propane. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), size, and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details and ENERGY STAR certification.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), size, installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.

Upgrade	Eligibility requirements	Supporting documents required for application form	Supporting documents required for completion form
AIR SOURCE HEAT PUMP WATER HEATER Air source heat pump water heaters transfer atmospheric heat via a refrigeration cycle for domestic hot water use. ***Effective Useful Life: 15 years***	• The heat pump water heater must be ENERGY STAR certified to the most recently published version. • The water heater must be tested in accordance with the AHRI 2013 Standard for Performance Rating of Commercial Heat Pump Water Heaters. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), size, and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), size, installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.
GROUND SOURCE HEAT PUMP WATER HEATER Ground source heat pump water heaters transfer geothermal or waste heat via a refrigeration cycle for domestic hot water use. ***Effective Useful Life: 15 years***	• The water heater must be tested in accordance with the AHRI 2013 Standard for Performance Rating of Commercial Heat Pump Water Heaters. • The ground source heat pump water heater must satisfy CSA Standard C448 and must be installed by an International Ground Source Heat Pump Association (IGSHPA) certified installer. • System design must be approved by a Professional Engineer licensed in Alberta who is accredited as a Certified Geo Exchange Designer by the IGSHPA or equivalent. • Must have a manufacturer's warranty for a period consistent with the industry standard and not less than one year. • Must have a warranty provided by the Qualified Contractor for defects in materials and labour for a period of not less than one year.	• A contractor quote itemizing the equipment to be installed, efficiency specifications, equipment make and model number(s), capacity, and costs of equipment and installation. • Equipment specification sheet(s) confirming equipment details. • Documentation from the Qualified Contractor confirming that the installer is IGSHPA certified, and the system meets CSA Standard C448.	• A contractor invoice itemizing the installed equipment, equipment make and model number(s), capacity, installation date, and costs of equipment and installation. • A photo of the equipment installed on the property. • A photo of the equipment nameplate label (including model and serial number), with all information legible.