7.4 Commercial HVAC		Pre-existing Equipment	Post-install Equipment
7.4.1 Advanced Rooftop Unit Control (ARC)	$100 per ton (ARC Retrofit - Lite)	Pre-conditions: Existing RTU heating fuel may be **electric or gas** & must: · have **cooling capacity ≥ 5 tons**; & · be a **unitary system** (split systems are not eligible); & · have a **constant-speed supply fan** (RTUs with variable speed fans are not eligible).	Post-conditions: Control Unit must be installed on an existing rooftop unit; and Control Unit must be listed on BPA's ARC Qualified Products List (QPL) www.bpa.gov/EE/Policy/IManual/Pages/IM-Document-Library.aspx ARC-Lite products add one of the following equipment options to the existing RTU: • A VFD and controller for variable speed fan operation, or multispeed motor and controller for multispeed fan operation; Provide to SUB all info required to complete this form: www.bpa.gov/EE/Policy/IManual/Documents/Advanded Rooftop Control Project Information Form.pdf
	$200 per ton (ARC Retrofit - Full)		Full-ARC products add the above and also a controller with the following enabled: • Digital, integrated economizer control with either differential dry-bulb, or differential enthalpy with fixed dry-bulb high-limit shutoff; and • Demand Control Ventilation with proportional control, based on CO2 sensor reading.
7.4.2 Connected T-stat	$150 per connected t-stat (Initial Install) $50 per connected t-stat (Verification)	Pre-conditions: Existing heating fuel type may be **electric or gas**; and · The existing t-stat is not web-enabled	The new t-stat controls an existing HVAC supply fan serving a single zone. "Invisible zones" are permitted (e.g., separate rooftop units serving different portions of a large retail space). · The installed connected t-stat must be listed on BPA's Connected T-stat Qualified Products List (QPL) www.bpa.gov/EE/Policy/IManual/Pages/IM-Document-Library.aspx The t-stat must be programmed as follows: 1. T-stat is connected to the web. 2. Temperature setback is used for unoccupied hours (heating and/or cooling, as applicable). 3. Fan schedule uses auto mode for unoccupied hours (e.g., during unoccupied hours or holidays, the fan will only run when there is a demand for heating or cooling). 4. Override duration set to three hours or less. 5. For heat pumps, auxiliary resistance heat lock-out is enabled with appropriate temperature set point. 6. In cases where two or more systems serve spaces that are not separated by physical barriers (e.g., "invisible zones"), simultaneous heating and cooling is eliminated (e.g. by having identical temperature set points and schedules with appropriate dead-bands, or through having network-coordinated controls). **Verification:** Complete & submit form at https://www.bpa.gov/EE/Policy/IManual/Documents/Connected Thermostat INITIAL INSTALL Project Information Form _edited.pdf A t-stat is eligible for programming verification payments as follows: 1. The t-stat received a payment for the initial install and was installed after Oct. 1, 2019. 2. The t-stat is eligible for up to four verification payments within two years of the initial install. 3. A verification payment can be claimed in same year as the initial install, provided verification takes place at least three months after the initial install. 4. The t-stat is programmed to meet the initial install programming requirements as described above under Initial Install Post-Conditions. 5. The t-stat is eligible for a verification payment twice within one calendar year. Verification may not be less than three months apart. 6. Verification must occur in different seasons (e.g., one in summer and one in winter, or one in fall and one in spring). Verification may not be less than three months apart. 7. Verification is not required to be conducted at regular intervals. The t-stat is eligible for a verification payment even if there has been a gap in verification activities. 8. There is no restriction on who can complete verification. Remit www.bpa.gov/EE/Policy/IManual/Documents/Connected Thermostat VERIFICATION Project Information Form.pdf
7.4.3 Ductless Heat Pump Retrofit and Upgrade (BPA-Qualified)	$1,000 per ton (Retrofit)	Pre-conditions: **DHP Retrofit:** · The space is conditioned by **electric- resistance heat** (zonal or forced-air) as the primary heating source. No other heating sources are eligible.	Post-conditions: · DHP must be listed on the DHP Qualified Products List (QPL) for Commercial applications https://www.bpa.gov/EE/Policy/IManual/imanual/DHP_QPL.xlsm · DHP outdoor condenser must meet BPA's efficiency requirements: 11.0 HSPF for Non-ducted; 10.0 HSPF for Ducted or Mixed. · The efficiency requirements apply to both single and multi-head systems. Mini-split systems may be ducted or non-ducted. Provide to SUB all info required to complete this form: https://www.bpa.gov/EE/Policy/IManual/Documents/Ductless Heat Pump Project Information Form_updated_April.pdf
	$300 per ton (Upgrade)	Pre-conditions: **DHP Upgrade:** · The space is conditioned by an operational or failed **DHP**; or · The space is part of a building addition, **new construction**, or major renovation project	
7.4.4 Air-Source Heat Pump Retrofit and Upgrade (BPA-Qualified) Measure is not to be used to retrofit packaged terminal air conditioning (PTAC) units.	$1,000 per ton (Retrofit)	Pre-conditions: **Heat Pump Retrofit:** · The space is conditioned by zonal or forced-air, **electric-resistance heat** as the primary heating source. No other heating sources are eligible.	Post-conditions: The installed heat pump must: · Be an air-to-air heat pump; · Have an AHRI certificate of product rating; & · Meet BPA's efficiency requirements for both heating and cooling per this table: Provide to SUB all info required to complete this form: https://www.bpa.gov/EE/Policy/IManual/Documents/Air-Source Heat Pump Project Information Form.pdf
	$150 per ton (Upgrade)	Pre-conditions: **Heat Pump Upgrade**: · The space is conditioned by an operational or failed air source **heat pump**; or · The space is part of a building addition, **new construction**, or a major renovation project.	
7.4.5 Variable Refrigerant Flow System Retrofit (BPA-Qualified)	$1,000 per ton	Pre-conditions: The space is conditioned **electric- resistance heat** (zonal or forced-air) as the primary heating source. No other heating sources are eligible.	Post-conditions: The installed VRF system must: · Have an AHRI certificate of product rating. · Meet BPA's efficiency requirements for both heating and cooling per this table: Provide to SUB all info required to complete this form: https://www.bpa.gov/EE/Policy/IManual/Documents/Variable Refrigerant Flow Project Information Form_edited.pdf
7.4.6 Variable Frequency Drive on Air Handling Unit Fan (BPA-Qualified)	$300 per horsepower • **This measure applies to retrofits only.**	Pre-conditions: • Building heating fuel type may be either **electric or gas**; • VFD must be installed on existing AHU single-speed fan.	Post-conditions: • Retrofit adds a VFD to control the fan with variable-speed operation; • Any existing AHU throttling or bypass devices (e.g., inlet guide vanes, dampers, etc.) must be removed or permanently disabled. Provide to SUB all info required to complete this form: https://www.bpa.gov/EE/Policy/IManual/Documents/VFD on AHU Fan Project Information Form.pdf

Eq. Size (Cooling BTU/H)	Air-Source Heat Pump	Heating Efficiency Requirement	Cooling Efficiency Requirement
< 65,000	Split System	9.0 HSPF	16.0 SEER
	Single Package	8.8 HSPF	
≥ 65,000 & < 135,000	47°F db/43°F wb Outdoor Air	3.5 COP	14.0 IEER
	17°F db/15°F wb Outdoor Air	2.4 COP	
≥ 135,000	47°F db/43°F wb Outdoor Air	3.4 COP	12.5 IEER
	17°F db/15°F wb Outdoor Air	2.4 COP	
Note: **db** & **wb** refer to dry bulb & wet bulb temperatures			

Eq. Size (Cooling BTU/H)	VRF Multi-split System	Heating Efficiency Requirement	Cooling Efficiency Requirement
< 65,000		11.0 HSPF	21.0 SEER
≥ 65,000 & <135,000	47°F db/43°F wb Outdoor Air	3.7 COP	12.0 EER & 23.0 IEER
	17°F db/15°F wb Outdoor Air	2.27 COP	
≥ 135,000 & <240,000	47°F db/43°F wb Outdoor Air	3.5 COP	10.7 EER & 20.5 IEER
	17°F db/15°F wb Outdoor Air	2.16 COP	
≥ 240,000	47°F db/43°F wb Outdoor Air	3.5 COP	9.8 EER & 18.9 IEER
	17°F db/15°F wb Outdoor Air	2.16 COP	

* All incentives subject to pre-approval by SUB and subject to adjustment per SUB's current policy.
See SUB Incentive Application for Adjusted Incentive details https://www.subutil.com/conservation/for-your-business/

7.5 Commercial Shell Measures			
7.5.1 Commercial Insulation (BPA-Qualified) (Heating Zone 1)	$0.75-$2.10 per square foot • **This measure applies to retrofits only.**	Pre-conditions: • The building is electrically heated; and • The existing insulation value is between R-0 and R-5.	Post-condition: • Installation of insulation in wall or attic/roof spaces per the levels shown in this Payment table: • Installation of insulation in floor or crawl spaces is not eligible. Provide to SUB all info required to complete this form: https://www.bpa.gov/EE/Policy/IManual/Documents/Commercial Insulation Project Information Form.pdf
7.5.2 Commercial Windows (BPA-Qualified) (Heating Zone 1)	$9 per square foot of window replaced • **This measure applies to retrofits only.**	Pre-conditions: • Electrically heated; • A total floor area under 20,000 square feet; and • Pre-existing windows that are single-pane, single-pane with storms, or double-paned metal-frame windows.	Post-conditions: • Installation of replacement window assemblies that have a National Fenestration Rating Council-rated U-value of 0.30 or lower. Provide to SUB all info required to complete this form: https://www.bpa.gov/EE/Policy/IManual/Documents/Commercial Windows Project Information Form.pdf

Attic/roof insulation payment per sqr. foot:	≤R-5 to R-19	$1.35
	≤R-5 to R-30	$1.40
	≤R-5 to R-49	$1.50
Wall insulation payment per sqr. foot:	≤R-5 to R-11	$0.75
	≤R-5 to R-19	$1.00

7.6 Commercial Refrigeration			
7.6.1 Anti-Sweat Heater (ASH) Controls – Freezer or Cooler	$40 per linear foot of case • **This measure applies to both retrofits and new construction.**	Pre-conditions: • Cooler Case: Any uncontrolled ASH that uses greater than 0.20 amps/ft.of case (door rail, glass &/or frame heating element combined); or • Freezer Case: Any uncontrolled ASH that uses greater than 0.39 amps/ft.of case (door rail, glass &/or frame heating element combined).	Post-conditions: • Cooler Case: Installation of a controller with settings that reduce the ASH run time by at least 50%. Includes any heating element in a door rail, glass and/or frame; or • Freezer Case: Installation of a controller that reduces the ASH run time by at least 50%. Includes any heating element in a door rail, glass and/or frame.
7.6.2 Walk-In or Display Case Evaporator Fan Motor – Shaded Pole to Electronically Commutated Motor (ECM)	• **This measure applies to retrofits only.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details
7.6.3 Strip Curtains for Walk-In Coolers and Freezers	• **This measure applies to retrofits only.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details

7.7 Commercial Kitchen and Food Service Equipment			
7.7.1 Demand Controlled Kitchen Ventilation (BPA-Qualified)	• **This measure applies to both retrofits and new construction.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details Provide to SUB all info required to complete this form: https://www.bpa.gov/EE/Policy/IManual/Documents/Demand Controlled Kitchen Vent Project Information Form_edited.pdf
7.7.2 Electric Commercial Steam Cookers	• **This measure applies to both retrofits and new construction.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details
7.7.3 Hot Food Holding Cabinets	• **This measure applies to both retrofits and new construction.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details
7.7.4 Electric Combination Ovens	• **This measure applies to both retrofits and new construction.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details
7.7.5 Electric Convection Ovens	• **This measure applies to both retrofits and new construction.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details
7.7.6 Commercial Electric Fryers	• **This measure applies to both retrofits and new construction.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details
7.7.7 Pre-Rinse Spray Valves	• **This measure applies to retrofits only.**	See Implementation Manual and talk to SUB for details	See Implementation Manual and talk to SUB for details

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