



Energy Outreach Colorado - Enterprise Green Communities Alternate Compliance Pathway for 5.1b

Overview

The Colorado Housing and Finance Authority (CHFA) requires that all moderate and substantial rehabilitations of affordable housing fulfill 2020 Enterprise Green Community (EGC) certification guidelines. Energy Outreach Colorado (EOC) has worked with CHFA and Enterprise Community Partners to establish an alternative pathway to comply with EGC 5.1b credit requirements. This pathway helps property owners see greater energy savings through commissioning major mechanical systems being serviced during the rehab.

Eligibility

In order to participate in this alternate compliance pathway, all of the criteria below must be met:

1. The property in question must have 66% of the units occupied or restricted to tenants whose income is at or below 80% of the area median income (AMI) of the county. Please refer to most recently published rent and income limits for CHFA's Multifamily Loan and Low Income Housing Tax Credits Rent and Income Program to determine income compliance.
2. Primary heating and cooling systems are required to be commissioned as detailed below.
3. The renovation will involve **two** of the energy efficiency measures described below AND commissioning of selected measures.
4. The property owner has submitted a completed application for the alternate compliance pathway as detailed below.

Pathway Process

1. Property owner submits a complete application to Energy Outreach Colorado describing the alternate compliance for their project. A complete application will include:
 - a. EOC Affordable Housing Rebate intake form (attached at end of this document)
 - b. The two selected energy efficiency measures along with the planned route of achieving compliance
 - c. Spec sheets showing relevant efficiency information for each measure
 - d. Bids showing material and labor cost (if new installation) – *when available*
 - e. A plan for commissioning that includes the selected commissioning agent and their method for commissioning the selected measures
2. Energy Outreach Colorado provides project approval or denial to property owner upon reviewing the application.
3. Once approved, EOC will schedule a site visit with the property owner to gather existing building information. This must take place before the renovation begins.
4. Once the selected measures have been installed the commissioning agent will complete their review of the system and their report will be supplied to EOC. Along with this report the property owner will describe which pieces of the report they will be implementing and the timeline for doing so.
5. Once EOC receives all final documentation the final compliance letter will be issued to the property owner.

Eligible Compliance Measures

Two major energy efficiency measures must be selected by the building owners to incorporate into the scope of work to address the project's energy efficiency retrofit plans. Please note that mandatory credit 5.7 requires Energy Star appliances, mandatory credit 5.8 requires high efficacy lighting, and mandatory credit 4.1 requires water conserving fixtures in all units and any in-scope common facilities. While these systems do not qualify as eligible compliance measures for the Energy Outreach Colorado - Enterprise Green Communities Alternate Compliance pathway for 5.1b, EOC does offer rebates for many of these items.

Eligible equipment: Any equipment meeting the standards below is eligible for consideration under this pathway.

- Heating or cooling equipment - Heating or cooling equipment that is currently installed on the property that meets the criteria below may be selected as a measure for this program. This applies even if no work, other than commissioning, is being performed on the system as part of the renovation. Any new equipment must also meet the specifications outlined below.
 - Eligible heating equipment:
 - Boiler replacements - Equipment must be 92% efficient or greater and sealed combustion
 - Furnace replacements - Equipment must be 92% efficient or greater and sealed combustion
 - Domestic hot water heating - Equipment must be 92% efficient or greater or .70 UEF or greater depending on the type of equipment. The systems must also be sealed combustion.
 - Eligible cooling systems:
 - Split systems (ductless or standard systems) - Combined system of at least SEER of 15 or EER 12.5. Ductless systems must also be a minimum HSPF of 9.
 - Chillers:
 - Water cooled scroll or rotary screw - Contact EOC for efficiency levels
 - Water cooled centrifugal - Must improve on IECC 2015 baseline by .0008GLV and .008 IPLV kW/ton
 - Cooling Towers:
 - Meets minimum performance requirements in Table 6.8.1-7 of IECC 2015
 - Evaporative cooling - Must have media saturation effectiveness of 85% or higher
 - Package Rooftop Units - Must meet or exceed 2019 CEE Tier 2 cooling, include an economizer AND be paired with a Variable Frequency Drive (VFD)
- Building controls systems - The addition of building controls systems that enable substantial control over the operation of the building's mechanical systems. Please note that the addition of programmable thermostats alone is not considered a building control system.
- Motors and pumps - The replacement of pumps that are over 5 horsepower and are being retrofitted with pumps equipped with variable frequency drives.
- Building Shell Measures
 - Air sealing and insulation of the building shell - Improving building envelope through the addition or modification of the existing insulation to a minimum R-value set forth by the 2015 IECC residential provisions, Table R402.1.2. This would include the following R-values for all areas *where thermal envelope improvement measures are implemented*.
 - Wood framed walls: R-20
 - Ceilings: R-49
 - Slab edge: R-10 to a depth of 2'
 - Floor (over unconditioned space): R-30
 - Prior to thermal envelope R-value improvements, air sealing measures should be implemented at all accessible locations. This includes using caulk or spray foam insulation at all interior or exterior thermal envelope penetrations equal to or greater than 1/8".
 - Window replacements - Window replacements must have a U-factor at least 5% more efficient than applicable local building codes

Commissioning or quality installation verification

This alternative compliance requires commissioning or quality installation verification depending on the measures chosen for the pathway. In order to be eligible for the pathway the following steps must be followed:

- Retain a commissioning agent as defined under IECC 2015 C408
- You must provide a proposal for commissioning/quality installation verification to EOC along with your application. The final commissioning/quality installation verification report must include high level simple payback estimates for the proposed fixes that save utility costs.
- Any measures determined by the commissioning agent that have less than a two-year simple payback are **required** to be completed as part of the renovation.
- If individually heated systems are part of the property only 10% or 5 units need to be commissioned, whichever is greater.
- If a system cannot be commissioned, applicable quality installation standards will be referenced:
 - o Insulation and air sealing – in accordance with manufacturer’s instructions and RESNET Grade I standards as applicable
 - o Heating and Cooling Systems not covered in IECC 2015 – in accordance with manufacturer’s instructions and Air Conditioning Contractors of America Standard 5, HVAC Quality Installation Specification as applicable

Waiver process

EOC recognizes that sometimes projects can come across issues or changes during construction that impact the scope of work. Once a project has been submitted and approved by EOC, it is assumed that the measures will be implemented as laid out in that plan. If anything changes in the scope that impacts the measures submitted, EOC must be notified immediately. If these changes require a different scope than submitted, EOC will require a waiver be submitted that explains why the change was necessary, what is being done now, and how the intent of the program is still being met.

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Energy Outreach Colorado Affordable Housing Rebate Program Intake Form

Please fill out the information below for the property you wish to apply for. If you have any questions about the application, please reach out to Maxwell Kaye at 303-226-5068 or mkaye@energyoutreach.org

Property Information	
Name of property:	
Name of property owner:	
Property owner or owners representative:	
Contact phone:	
Contact email:	
Total number of buildings:	
Total number of units:	
Utility Information	
Name of electric utility:	
Name of gas utility:	
Does the property have one electric meter per unit or one per building?	
Does the property have one gas meter per unit or one per building?	

In order to be eligible for the Affordable Housing Rebate Program, your property must meet the income guidelines where 67% of the residents onsite make 80% Area Median Income (AMI) or lower for your county. Please describe the property's income restrictions below:

Income Qualification