

City and County of Denver

Energize Denver Benchmarking and Energy Performance Requirements

Buildings 5,000 – 24,999 Square Feet

Technical Guidance

Version 1.0
June 30, 2023

Nothing in this Guidance shall supersede any City and County of Denver ordinance or regulation.

[Denver Revised Municipal Code, Chapter 10, Article XIV.](#)

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Acronyms

ACO – alternate compliance option
 ANSI – American National Standards institute
 ASHRAE – American Society of Heating, Refrigerating, and Air-Conditioning Engineers
 ACCA – Air-Conditioning Contractors of America
 CASR – Office of Climate Action, Sustainability, and Resiliency
 CCD – City and County of Denver
 CPD – Community Planning and Development
 DOE – United States Department of Energy
 EEM – energy efficiency measure
 EPA – United States Environmental Protection Agency
 ESCO – energy services company
 ESPM – ENERGY STAR Portfolio Manager
 EUI – energy use intensity
 GFA – gross floor area
 HOA – homeowner association
 kBtu – thousand British thermal units
 kWh – kilowatt hours
 LED – lighting emitting diode
 LPD – lighting power density
 NAILD – National Association of Innovative Lighting Distributors
 LSII – Lighting Specialist II
 REC – Renewable Energy Credit

Definitions

Annual Site Energy Use: the total energy consumed by the building in one year measured in kBtu, including all equipment and fixtures attached to the building energy meters.

Benchmarking: measuring a Covered Building's energy performance using the ENERGY STAR Portfolio Manager tool or other similar platforms as CASR may designate.

Benchmarking Submission: the data submitted each year via the ENERGY STAR Portfolio Manager tool, or other similar platforms as CASR may designate, using a template and submission link to be distributed and publicized by CASR. All information expressly denoted as mandatory by either ENERGY STAR Portfolio Manager or CASR shall be included in the submission.

Common Space: the entire common interest development except the separate interests therein. Common space includes any part of a building or complex that is not owned by one specific resident. Common space includes (but are not limited to): entrances, exits, doorways, stairwells, common terraces, basements, rooftops, parking areas, elevators and elevator lobbies, gardens, common storage spaces, waste disposal areas, central service installations, and any other portions of land or property with purpose for common use.

Covered Building: any commercial or multifamily individual building in the City and County of Denver except a building for which a demolition permit for the entire building has been issued and for which demolition work has commenced on or before the building's prescribed compliance deadline, or a building that had received their Certificate of Occupancy or Temporary Certificate of Occupancy on or before November 22, 2021.

ENERGY STAR Portfolio Manager: the online tool created by the US Environmental Protection Agency used to measure and track a building's energy use, water consumption, and greenhouse gas emissions. For purposes of this rule "ENERGY STAR Portfolio Manager" may also mean another platform as CASR may designate.

Existing Building Performance: the energy efficiency and renewable energy of a Covered Building measured by site Energy Use Intensity (EUI), or EUI adjusted for renewable energy using data reported via the ENERGY STAR Portfolio Manager tool or other platforms as CASR may designate.

Gross Floor Area (GFA): the total building square footage, measured between the outside surface of the principal exterior fixed walls of a building. GFA should include lobbies, tenant areas, common areas, meeting rooms, break rooms, atriums (base level only), restrooms, elevator shafts, stairwells, mechanical equipment areas, basements, storage rooms. GFA should not include exterior spaces, balconies, patios, exterior loading docks, driveways, covered walkways, outdoor play courts, parking, or crawl spaces.

High Performance Existing Buildings Program: the administrative program implemented by CASR requiring the Benchmarking, reporting, and Existing Building Performance in commercial and multifamily buildings that are located within the City and County of Denver.

Lighting Load: the energy used to power electric lights in a building's interior, exterior, and parking areas as measured in kilowatt hours. The calculation of lighting load shall include all lighting that is connected to the building's electrical meter(s).

Lighting Power Density (LPD): the lighting power in watts per square foot.

Owner: the person or entity having a legal or equitable interest in real property and its fixtures and appurtenances, which shall explicitly include but not be limited to a homeowner's association.

Tenant: a person or entity entitled to the possession, occupancy, or the benefits of any rental unit owned by another person or entity.

1 Introduction

The Office of Climate Action, Sustainability and Resiliency (CASR) and the Energize Denver Task Force was tasked with helping the City design a building performance policy for existing buildings that improves health and equity, creates jobs, and drives climate solutions in existing buildings to achieve net zero energy by 2040. Translating this goal into cumulative greenhouse gas emission reductions results in 13.7 million metric tons of CO2 saved between now and 2040. Denver's definition of a net zero energy building is highly energy efficient, all electric, provider of demand flexibility to the grid, and powered by renewable electricity. Existing buildings include all commercial and multifamily buildings, including all commercial uses such as manufacturing, agricultural, and industrial uses.

DENVER HAS COMMITTED TO ELIMINATING GREENHOUSE GAS EMISSIONS BY 2040. FOR BUILDINGS AND HOMES, THIS MEANS THE GOALS ARE:

- ALL NEW BUILDINGS AND HOMES "NET ZERO ENERGY" BY 2030
- ALL EXISTING BUILDINGS AND HOMES "NET ZERO ENERGY" BY 2040

The Task Force was a diverse group representing multiple sectors and stakeholders in Denver. Membership included building owners and managers, our local utility, energy providers, resident/tenant/non-profit representatives, labor and workforce representatives, environment and clean energy representatives, and a member of Denver City Council.

The recommendations from the Energize Denver Task Force were codified into law through the creation of the High-Performance Existing Building Program, which requires building owners of covered buildings to address existing building performance through energy efficiency and renewables. This policy expects to remove 11.8 million tons of cumulative emission reductions from the built environment to help the City and County of Denver (CCD) achieve its climate action goal of zero greenhouse gas emissions in existing buildings by 2040. Figure 1 outlines the three sections of the Energize Denver Ordinance, implemented by both CASR and Community Planning and Development (CPD).

Benchmarking	Performance	Electrification
• IMPLEMENTED BY CASR • BUILDINGS 25K SQ.FT. OR LARGER MUST SUBMIT ENERGY BENCHMARKING DATA THROUGH ENERGY STAR PORTFOLIO MANAGER ON AN ANNUAL BASIS	• IMPLEMENTED BY CASR • 2030 SITE EUI ENERGY REQUIREMENTS FOR BUILDINGS 25K SQ.FT. OR LARGER • PRESCRIPTIVE LIGHTING OR SOLAR REQUIREMENTS FOR BUILDINGS 5,000-24,999 SQ.FT. • FOCUSED ON IMPROVING ENERGY EFFICIENCY FOR EXISTING BUILDINGS	• EDUCATION AND INCENTIVES FROM CASR • BUILDING CODE UPDATES AND PERMITTING IMPLEMENTED BY CPD • ALL COMMERCIAL AND MULTIFAMILY BUILDINGS MUST PARTIALLY ELECTRIFY SPACE AND WATER HEAT EQUIPMENT UPON SYSTEM REPLACEMENT, WHEN COST EFFECTIVE

This guidance manual covers policies and procedures for the performance requirements for buildings 5,000 – 24,999 square feet in gross floor area.

2 Performance Requirements – Buildings 5,000–24,999 SQ. FT.

2.1 General

Owners of Covered buildings with a gross floor area between 5,000 and 24,999 square feet must meet energy performance requirements by their respective deadline (see section 2.4 for compliance deadlines based upon gross floor area). Covered building owners must complete one of the following prescriptive requirements:

- (1) certify that a minimum of 90% of the building's total lighting load is provided by light emitting diode (LED) lights, or that all lighting meets 2019 Denver Building and Fire Code for lighting power density, OR
- (2) utilize on- or off-site renewable power generation to meet a minimum of 20% of the building's annual site energy use.

2.2 Applicability

For purposes of performance requirements, this means any Covered Building in the City and County of Denver with a gross floor area between 5,000 and 24,999 square feet. The performance requirements are applicable to all existing buildings that had received their Certificate of Occupancy or Temporary Certificate of Occupancy on or before November 22, 2021.

CCD does not have jurisdiction over state-owned, federal-owned, or foreign consulate buildings. Applicability is based on the building ownership, not the tenants, so if a state or federal entity is a tenant in a privately-owned building, the performance requirements would apply to the entire building. In ground lease situations, the entity that builds the structure is the owner of the building, so performance requirements would also apply.

In the case of residential and commercial condominium buildings with shared ownership, the performance requirements apply to the entire building. While individual owners in these buildings may own units less than the 5,000 square feet threshold, the performance requirements apply to the building as a whole, including both individual and common spaces.

2.3 Compliance Schedule

Owners of Covered Buildings will be required to comply by the following schedule:

- December 31, 2025: buildings with gross floor area of 15,001-24,999 square feet
- December 31, 2026: buildings with gross floor area of 10,001-15,000 square feet
- December 31, 2027: buildings with gross floor area of 5,000-10,000 square feet

2.4 Demolition

For the performance requirements, the building owner may request an exemption due to demolition of a building (not an interior space). An exemption should be requested if the demolition will be commenced on or before the building's compliance deadline.

Scenarios in which a demolition exemption would be approved are:

- A building for which a demolition permit for the entire building has been issued and for which demolition work has commenced on or before the deadline to implement the performance requirements.
- A building for which a demolition permit for a portion of the building has been issued in which the remaining building will be less than 5,000 sq. ft., which would remove the building from the performance requirements.

Application for a demolition exemption includes the submission of an online form (example in Appendix A) with attachments that prove the pending or completed demolition, with a submission deadline of June 1 of the year of the building's compliance deadline. Supporting documentation shall include:

- Valid, unexpired approved or submitted Total Demolition Application
- Stamped drawings that clearly show extent of demolition that will render building incapable of supporting any occupancy or use

2.5 Data Use/Confidentiality

The Energize Denver program information is publicly available on the Benchmarking Map and Open data catalog. No personally identifiable information is included in these data sets. CASR publishes basic building information and compliance status annually for all buildings reporting that year, including but not limited to the following fields:

- Building ID
- Property name
- Building Address
- Property type
- Gross Floor Area
- Building Neighborhood
- Compliance Status

3 Compliance Pathways

Covered building owners must complete one of the pathways, either upgrading lighting or using renewable power generation, to be compliant with the Energize Denver requirements. The lighting pathway is discussed in Section 3.1 and the renewable power generation pathway is discussed in Section 3.2. CASR also offers several alternate compliance options (ACO) covered in Section 4 for specific buildings or situations.

3.1 Lighting

The lighting pathway requires that the building owner certify that a minimum of 90% of the building's total lighting load is provided by LED lights, or that all lighting meets 2019 Denver Building and Fire Code for lighting power density.

For buildings which were constructed or completely remodeled on or after August 1, 2020 (the date the 2019 Denver Building and Fire Code became active), the building owner can submit the final construction permit approved and recorded by CCD's Office of Community Planning and Development (CPD).

For all other buildings, there are two pathways available to demonstrate compliance with the LED lighting requirements:

- For building owners who require upgrades to their current lighting to comply with the LED lighting requirements, please refer to Section 3.1.1. This section provides an overview of how your lighting contractor can provide accompanying documentation to demonstrate compliance.
- For building owners who are already compliant with the LED lighting requirements and only require certification to confirm this, please refer to Section 3.1.2. This section provides an overview of the documentation required to certify your current LED lighting.

3.1.1 Buildings that Require Upgrades to Lighting

Building owners must provide documentation from a third-party Lighting Professional verifying that a minimum of 90% of the building's total lighting load has been upgraded and is now provided by LED lights. To complete this paperwork, lighting professionals must meet a minimum of one (1) of the following requirements:

- Certified Lighting Consultant through the American Lighting Association
- Lighting Certification from the National Council on Qualifications for the Lighting Professions
- National Association of Innovative Lighting Distributors (NAILD) Lighting Specialist II (LSII) designation
- Licensed Electrical Contractor registered with the State of Colorado

Submission of compliance documentation includes filling out an online form and uploading attachments that prove the status of the building's lighting. Documentation includes:

1. A complete signed lighting audit, using the Lighting Audit Template (Appendix B), completed by a lighting professional (or the licensed electrical contractor performing the installation, if they performed the work) verifying a minimum of 90% of the lighting load is provided by LED lights.
2. A complete signed Letter of Attestation for LED Lighting Compliance from a Lighting Professional service provider (as shown in Appendix C), verifying that the building is in compliance

Building owners are required to retain the invoice(s) for any lighting upgrades for a period of two (2) years after the submission of compliance documentation. CASR reserves the right to request submission of invoices for additional verification of compliance.

3.1.1.1 Lighting Audit Requirements

The Lighting Audit Template (Appendix B) must include information on all lighting fixtures present in the interior, exterior, and parking areas of the building. Kilowatt-hour savings for each fixture are automatically calculated within the spreadsheet, as is the percentage of the total lighting load provided by LED lights. The Lighting Audit Template may be submitted by the building owner, building manager, or the lighting professional who performs the work.

The audit template is divided into two sections:

- Table 1 is an audit of all existing fixtures connected to the building's electrical meter(s). This demonstrates the percentage of the building's total lighting load that is currently provided by LED lights.
- Table 2 lists the recommended lighting retrofits to the building and demonstrates the percentage of the building's total lighting load that would be provided by LED lights with these recommended retrofits in place. This will demonstrate the retrofits necessary to bring the building into compliance with the LED lighting requirements.

The audit must include a description of all interior, exterior, and parking-area lighting fixtures that are connected to the building's electrical meter. The following information is required for each fixture:

- Fixture type (e.g. LED wall pack, high-pressure sodium lamp, metal halide lamp, etc.)
- Total watts of each fixture
- Quantity of each fixture type
- Hours of operation of each fixture (annually)

- Presence of occupancy sensor (turns off or dims lights when no motion)
- Presence of photosensor (turns off or dims light fixture during daylight)
- Presence of automatic time switch (lights turn on/off or dim according to a preset schedule or timer)

Based upon these inputs, the lighting audit template automatically calculates the following outputs:

- Estimated annual energy consumption of each fixture (kilowatt-hours)
- Estimated annual energy costs for each fixture (dollars)
- Total kilowatt hours consumed by lighting in the building
- Total kilowatt hours provided by LED lighting in the building

Multifamily buildings (residential apartments and condominiums) with more than five residential units require the lighting audit to physically assess a minimum of one unit for each type of floor plan that is present within the building, in addition to all common spaces. If units are being renovated or remodeled upon vacancy, the lighting auditor shall physically assess a minimum of one unit for each type of floor plan and one of each renovation type, in addition to all common spaces. Auditors then extrapolate the results to the remainder of the residential units. Lighting audits of residential units in multifamily buildings shall include all attached lighting fixtures, but may exclude any unattached, freestanding lamps (plug-in style).

3.1.2 Buildings Already in Compliance with LED Lighting Requirements

Buildings which are already in compliance with the lighting requirement (i.e., do not require additional upgrades and only require proof of compliance) may provide documentation from a lighting professional verifying that a minimum of 90% of the lighting load is provided by LED lights. The Lighting Verification Template in Appendix D may *not* be completed by a licensed electrician – it may only be completed by one of the following lighting professionals:

- Certified Lighting Consultant through the American Lighting Association
- Lighting Certification from the National Council on Qualifications for the Lighting Professions
- National Association of Innovative Lighting Distributors (NAILD) Lighting Specialist II (LSII) designation

Submission of compliance documentation includes completion of an online form and uploading attachments that document the status of the building's lighting. Documentation includes:

- A complete signed lighting audit, using the Lighting Verification Template (Appendix D), completed by a Lighting Professional verifying a minimum of 90% of the lighting load is provided by LED lights.
- A signed Letter of Attestation of Lighting Compliance (Appendix C) from the lighting professional that completed the Lighting Verification Template verifying that the building is in compliance.

3.1.2.1 Lighting Verification Requirements

The Lighting Verification Template (Appendix D) must include a description of all interior, exterior, and parking-area lighting fixtures that are connected to the building's electrical meter. This audit does not require a description of the lamp's wattage, nor annual running hours, but instead only requires a walk-through of the entire building to determine if lighting fixtures are LED or non-LED. The following information is required for each fixture:

- Location type – this is a short description of the building location containing the fixtures. No standardized terminology is required here, but the description should be brief and clear (e.g., entryway, hallway, office, parking garage, exterior patio space, etc.)
- Fixture type – select the appropriate fixture type from the drop-down menu. This should be done for each type of fixture per location/space
- Quantity of each fixture type

Based upon these inputs, the lighting audit template automatically calculates the proportion of fixtures that are non-LED. The template automatically calculates the compliance status as ‘Yes’ or ‘No.’ If the proportion of LED light fixtures is greater than or equal to 97% (equivalent to 90% of the lighting load), then the building is in compliance with the requirements. If the proportion of LED light fixtures is less than 97%, the building is not in compliance with the requirements and is responsible for converting a sufficient proportion of non-LED lighting to LED lighting in order to meet the requirements.

Multifamily buildings (residential apartments and condominiums) with more than five residential units require the lighting audit to physically assess a minimum of one unit for each type of floor plan that is present within the building, in addition to all common spaces. If units are being renovated or remodeled upon vacancy, the lighting auditor shall physically assess a minimum of one unit for each type of floor plan and one of each renovation type, in addition to all common spaces. Auditors then extrapolate the results to the remainder of the residential units. Lighting audits of residential units in multifamily buildings shall include all attached lighting fixtures, but may exclude any unattached, freestanding lamps (plug-in style).

3.1.3 Disposal of Used Lighting Fixtures and Bulbs

Many commonly used lamps, such as fluorescent, high-pressure sodium, mercury vapor, and metal halide, contain small amounts of mercury and other hazardous metals. Mercury has a devastating effect on humans and wildlife, especially fish and fish-eating animals. The Environmental Protection Agency has classified mercury-containing lights as a “Universal Waste” that are considered a type of hazardous waste. According to federal law, businesses must dispose of Universal Wastes properly. Proper disposal of mercury-containing lamps involves recycling them at a permitted facility.

The easiest way to recycle your fluorescent lamps is discussing the disposal of the old lighting with your vendor before you purchase new lamps so they are reclaimed when they switch out your lights. Another option is to store your old lamps and have them collected by a certified recycler. You can also purchase a postage-paid shipping box from a vendor who will properly recycle your used lamps; you simply seal the box when it is filled with expired lamps and ship it back to the vendor. Please consult CASR’s Energize Denver Hub web site for a list of service providers in the Denver metro area.

3.2 Renewable Power Generation

The renewable power generation pathway requires that the building owner certify that their building uses on- or off-site renewable power generation to meet a minimum of 20% of the building’s annual site energy use. CASR encourages the use of renewable energy where capacity is being added to the grid and contributing to Denver’s climate goals. At this time, the renewable credit applies only to solar and wind generation but could be expanded to other renewables in the future.

Compliance with the renewable power generation requirement can be demonstrated through any of these three ownership options:

- On-site renewable energy generation where the renewable system is tied directly to the building
- Off-site renewables installed on off-site property owned by the Covered Building Owner
- Off-site renewables owned by a third party where the renewable power generation is a subscription, lease, or purchase of a share in either a voluntary renewable energy program offered by Xcel Energy or a community solar project for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is built for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription. The term of purchase must be at least five (5) years. Month-to-month subscriptions (i.e., Xcel Energy Windsource) do not meet the criteria for compliance. Existing subscriptions can be retroactively credited from November 22, 2021.

3.2.1 Demonstration of Compliance

Submission of compliance documentation includes completion of an online form and attachments proving the portion of building energy use the renewables cover and evidence of ownership or subscriptions. Documentation includes:

1. Annual site energy use
2. Ownership documentation to verify of ownership of, or subscription to, renewable energy
3. Power generation documentation to verify the total kWh of renewable energy generated

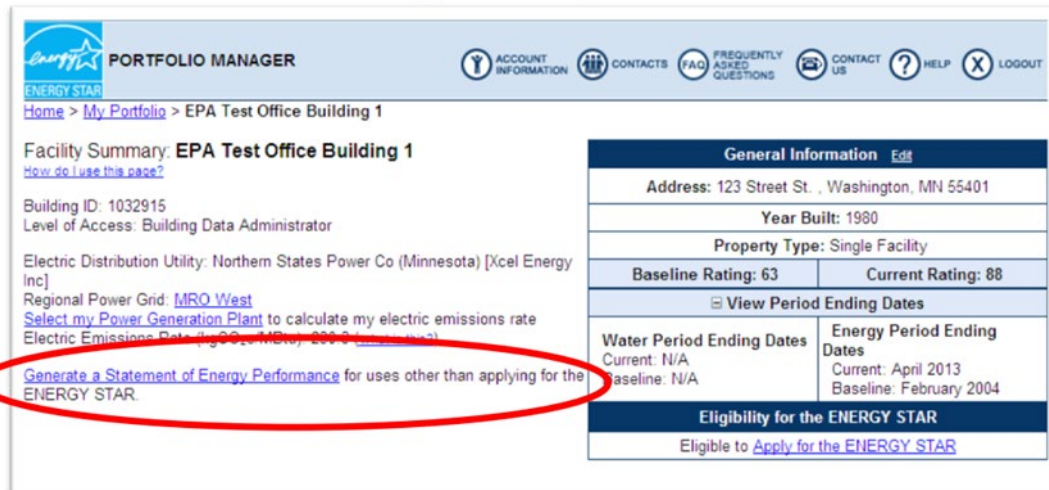
Table 1 combines all of the detail from Sections 3.2.1.1, 3.2.1.2, and 3.2.1.3 and gives examples of Denver-specific renewable energy options and their possible documentation for submission. CASR may conduct on-site audits of buildings or request copies of contracts or generation reports to verify compliance.

3.2.1.1 Annual Site Energy Use Documentation

To demonstrate that at least 20% of the building's annual site energy use is covered by renewable power generation, one of the submissions must demonstrate the total energy the building uses over a 12-month period. Annual site energy use is defined as the total energy consumed by the building in one year measured in kBtu, including all equipment and fixtures attached to the building's energy meters. This includes both electricity and gas use. The Covered Building Owner may choose any 12-month calendar year from 2022 onwards to serve as the baseline year.

Annual site energy use is proven by entering basic building information and 12 months of utility bills into Energy Star Portfolio Manager (ESPM) and generating a report called the Statement of Energy Performance. An example of this document is provided in Appendix E. This Statement is required of all buildings in this compliance pathway no matter what type of renewables they have. To generate a Statement of Energy Performance for uses other than applying for the ENERGY STAR, follow the steps below:

1. Login to your account at www.energystar.gov/istar/pmpam
2. In the My Portfolio view, click the name of the building for which you would like to create a Statement of Energy Performance (SEP). This action will take you to the Facility Summary view.
3. In the Facility Summary view, click "Generate a Statement of Energy Performance for uses other than applying for the ENERGY STAR" link towards the upper left corner of your screen.



PORTFOLIO MANAGER

Home > My Portfolio > EPA Test Office Building 1

Facility Summary: EPA Test Office Building 1
[How do I use this page?](#)

Building ID: 1032915
Level of Access: Building Data Administrator

Electric Distribution Utility: Northern States Power Co (Minnesota) [Xcel Energy Inc]
Regional Power Grid: [MRO West](#)
[Select my Power Generation Plant](#) to calculate my electric emissions rate
Electric Emissions Rate: [0.020 MWh/ft²-yr \(2004\)](#)

[Generate a Statement of Energy Performance](#) for uses other than applying for the ENERGY STAR.

General Information Edit	
Address: 123 Street St., Washington, MN 55401	
Year Built: 1980	
Property Type: Single Facility	
Baseline Rating: 63	Current Rating: 88
View Period Ending Dates	
Water Period Ending Dates Current: N/A Baseline: N/A	Energy Period Ending Dates Current: April 2013 Baseline: February 2004
Eligibility for the ENERGY STAR	
Eligible to Apply for the ENERGY STAR	

4. Follow the instructions to:
 - a. Select a period ending date (to specify the 12 month period for the SEP),
 - b. Select contacts for the statement (optional), and
 - c. Select "Statement of Energy Performance" under Reporting Options.
5. Save the generated PDF Statement of Energy Performance for your records

Please note that the Statement of Energy Performance does **not** require a signature and stamp of a verifying professional (as is stated on the generated document) – this document may be completed and submitted by the building owner, and this signature part may be left blank.

For additional support on benchmarking energy usage with Energy Star Portfolio Manager, please visit CASR's *Benchmarking Help* web site: <https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency/High-Performance-Buildings-and-Homes/Energize-Denver-Hub/Buildings-25000-sq-ft-or-Larger/Benchmarking-Requirements#section-2>.

3.2.1.2 Ownership Documentation

To demonstrate what type of installation and ownership the building owner is using for the renewable power generation requirement, the following list outlines the type of documentation required for submission:

- On-site installation: owner must provide proof that the renewable energy system is installed, most likely in the form of an invoice, installation contract from the developer, or other means of documentation
- Off-site installation: owner must provide proof of interconnection, usually the interconnection agreement and permission to operate notification
- Off-site owned by third party: owners must provide evidence of a subscription, lease, or purchase of a share in either a voluntary renewable energy program offered by Xcel Energy or a community project for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is built for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription. The term of purchase must be at least five (5) years.

3.2.1.3 Power Generation Documentation

To demonstrate the annual kWh of renewable energy utilized by the covered building, documentation must demonstrate either the quantity of kWh generated or purchased on an annual basis, or if a new

installation, the total kW capacity of the panels and an estimate of annual kWh production from the installer. The types of documentation include:

- On-site and off-site installations: installer invoice or installation contract detailing estimated kWh generated annually or verification of the total kW capacity of the system with a signed Statement of On-Site Renewable Energy Performance (Appendix F), OR 12 months of self-generated reports from the system's monitoring software that shows the actual kWh generated by the system in that 12 month period
- Off-site owned by third party: evidence of a subscription, lease, or purchase of a share in either a voluntary renewable energy program offered by Xcel Energy or a community solar project, explicitly stating the kWh of renewable energy purchased annually, OR 12 months of Xcel Energy bills or reports that explicitly state the kWh of renewable energy credited to the building owner's energy bill.

TABLE 1 – EXAMPLES OF OWNERSHIP AND POWER GENERATION DOCUMENTATION FOR RENEWABLE ENERGY

Scenario	Possible Program	Ownership Documentation	Power Generation Documentation
Solar/Wind power generated capacity on-site	Net Metering, Solar*Rewards	Interconnection agreement, Permission to Operate notification	Installer invoice or installation contract detailing estimated kWh generated annually, signed Statement of On-Site Renewable Energy Performance (Appendix F), OR self-generated report detailing kWh generated over 12 months
Solar/Wind power generated capacity off-site	Off-site solar or wind	Interconnection agreement, Permission to Operate notification, or proof of ownership of panels	Installer invoice or installation contract detailing estimated kWh generated annually, signed Statement of On-Site Renewable Energy Performance (Appendix F), off-site renewable capacity contract, or self-generated report detailing kWh generated over 12 months
Multifamily building where tenants purchased solar through Community Solar Garden subscription	Community Solar Gardens, Solar*Rewards Community	Building owner would have to collect and submit occupants' contracts listing kWhs individually subscribed	Building owner would have to collect monthly invoices from occupants to prove total kWhs of energy generated
Renewable*Connect long-term contract (5 year minimum)	Renewable*Connect	Subscription contract	Subscription contract explicitly stating annual kWh of renewable energy purchased, OR 12 months of Xcel Energy bills or reports that explicitly state the kWh of renewable energy purchased

3.2.2 Renewable Contract Confidentiality

If an Owner can demonstrate that the building's renewable energy sources are a confidential business practice that includes trade secrets, privileged, or confidential commercial information, the Owner can submit a request for the renewable generation submission to be kept confidential and not

subject to Colorado Open Records Act requests or included in open data disclosures. The owner can do that by using the Energize Denver Confidentiality Request on the Energize Denver Hub.

4 Alternate Compliance Options

The owner of a covered building may apply for an alternate compliance option (ACO) either to extend the deadline for the building, or to ask to complete a different project in place of the lighting or renewable energy requirements. CASR will review the application, and subject to CASR's discretion, approve the alternate compliance option. The section outlines the minimum requirements and process for requesting the following alternate compliance options:

- Timeline Adjustment ACO (Section 4.3)
- Residential Condominium Building ACO (Section 4.4)
- 15% Energy Use Reduction ACO (Section 4.5)

4.1 Deadline for Application Submission

Deadlines for submitting an application for an ACO are dependent on the original compliance deadline for the building, as outlined in Table 2. ACO reviews may take some time and multiple conversations between CASR and the building owner to come to an agreement, so CASR encourages building owners to not wait until the deadline to submit their application.

TABLE 2 – ALTERNATE COMPLIANCE APPLICATION DEADLINES

If the Building's Compliance Deadline is...	The ACO Application Deadline is....
December 31, 2025	December 31, 2024
December 31, 2026	December 31, 2025
December 31, 2027	December 31, 2026

4.2 Energy Audit Minimum Requirements

CASR is using the Audit Template Tool provided by the Department of Energy (DOE) as a standardized method to collect energy audit information from building owners. If the ACO requires an energy audit, the audit report must be generated through the Audit Template Tool.

Energy audits must follow ANSI/ASHRAE/ACCA Standard 211-2018 and have the following minimum requirements:

- Energy auditor must have one of the following:
 - Professional Engineer (licensed in the United States)
 - Certified Energy Auditor (Association of Energy Engineers)
 - Certified Energy Manager (Association of Energy Engineers)
 - Building Energy Assessment Professional (ASHRAE)
 - High-Performance Building Design Professional (ASHRAE)
 - Multifamily Building Analyst (Building Performance Institute)
- Energy Auditor must be a third-party individual or company and not be employed by the organization that owns or operates the building.
- Energy audit must be a minimum of an ASHRAE Level 1.
- Energy audit must be submitted through the online Denver Audit Template tool.
 - Existing Equipment - Audit template tool will require inventory of all equipment
 - Solutions – list all energy efficiency measures needed to reach a minimum of a 15% estimated reduction in annual energy use

- Baseline identification: Total annual site energy use of the building for one previous calendar year, using ESPM's Statement of Energy Performance or another mechanism allowed by CASR. Any calendar year from 2022 onwards may be used as the baseline.
- Timeframe of Audit
 - Audits completed since November 22, 2021 will be accepted.
 - If the building owner wishes to use an audit completed between January 1, 2018 and November 21, 2021, the building energy use information and associated savings calculations must be updated to accurately reflect a more recent calendar year's baseline at the time the plan is submitted to CASR.
- Investment analysis minimum requirements:
 - Individual measure cost and site kWh savings, including savings to investment ratio (SIR) and return on investment (ROI) calculations
 - Total project cost and site kWh savings, including total SIR and ROI

4.3 Timeline Adjustment ACO

The building owner may apply to adjust the compliance timeline for a variety of reasons that could make achieving the specified deadline difficult. Possible reasons for submitting a timeline adjustment request include, but are not limited to:

- Planning for major renovation
- Landmark Preservation Commission review process means the work won't be done in time for a compliance deadline
- Financial distress - A building that is presently experiencing qualifying financial distress, as defined by any of the following: (1) the building is the subject of a qualified tax lien sale or public auction due to property tax arrearages; (2) the building is controlled by a court appointed receiver; or (3) the building has been acquired by a deed in lieu of foreclosure.
- Change of building ownership where the new building owner will have difficulty in complying on time (for example, new owner purchases the building in 2025 and previous building owner did not make progress towards a 2025 compliance deadline).
- Restrictions based on lease agreement(s) with current building tenant(s)
- Buildings with manufacturing, agricultural or other activities that would require interruption to production to implement compliance measures
- Delays in obtaining an interconnection agreement from Xcel Energy for on-site renewable energy systems that have been installed
- Multiple buildings with different compliance deadlines are part of a single Energy Performance Contract through an Energy Services Company (ESCO)
- Equity Priority Buildings may qualify for additional reasons not listed, such as financing cycles for qualified affordable housing buildings, limited access to capital due to restrictions on the financing of the building, etc. that would be considered on a case-by-case basis.
- Other reasons that will be considered by CASR on a case-by-case basis

Natural or man-made disasters that affect the building's ability to meet its specified compliance deadline (such as fire, tornado, flood, etc.) could qualify for a timeline adjustment, but could have a simpler application process than outlined below. If a building has experienced a situation that may qualify, the building owner should schedule a discussion with a CASR representative before starting the application process.

4.3.1 Application Details

An online application form is available for the Time Adjustment ACO. The form will ask questions about the reason(s) a timeline extension is required, details on justification for the delay, and any relevant supporting documentation. The building owner must present a plan and timeline for

attaining compliance through the Retrofit Plan (Appendix G). The retrofit plan will result in a timeline adjustment agreement that outlines exactly what will be done in the building and when it will be done, which becomes the legally binding compliance plan. For each reason listed, supporting documentation should be attached to the application (suggestions listed in Table 3).

The application for a timeline adjustment includes:

- Online application form (sample shown in Appendix H)
- Retrofit Plan (Word or PDF) document (template provided in Appendix G)
- Other documentation that would support the timeline change request as suggested in Table 3

Table 3 -

Circumstance	Documentation
Planning for major renovation	Details from architect/engineer on how the major renovation will meet the LED lighting or renewable energy requirement. Energy audit, energy modeling, construction or design documents, scopes of work could also be submitted.
Change of building ownership	Proof of sale of building and narrative explaining the new building owner's inability to comply on time.
Restrictions based on lease agreement(s) with current building tenant	Copy of lease agreement that details restrictions to implementing compliance measures by the current compliance deadline.
Landmark Preservation Commission review process means the work won't be done in time for deadline	A detailed description of the unique limitations placed on the building and a letter from the Landmark Preservation Commission endorsing the delay and restrictions placed on the building.
Financial distress	Paperwork that proves the status of any of the 3 reasons stated.
Financing timelines for affordable housing	Proof of affordable housing status: copy of covenant or other formal restriction, financial ledger or rent roll with unit-by unit summary table, cooperative agreement or other documentation demonstrating membership sale prices are limited to low/moderate income residents. Description of the funding strategy that will be pursued to implement interim and final energy efficiency measures (EEMs) and/or retrofits to meet the savings target. Description should provide an estimate of the projected funding sources (property operating income, reserves, private financing, public financing, etc.) needed and the estimated costs to be incurred to meet the requirements.
Buildings with industrial, agricultural or other activities that would require an interruption in production	Proof of activities carried out at building and reasons that compliance measures cannot be carried out by the current compliance deadline.
Multiple buildings with different compliance deadlines are part of a single Energy Performance Contract through an ESCO	Copy of Energy Performance Contract and reasons that the contract does not allow all buildings to meet their respective compliance deadlines.
Delays in obtaining an interconnection agreement from Xcel Energy for on-site renewable	Proof of installation of on-site renewable energy generations systems and a copy of application for Xcel Energy interconnection agreement.

energy systems that have been installed	
---	--

4.3.2 Timeline Adjustment Agreement

After CASR has completed its review of the submission, it will use the agreed-upon retrofit plan to create a Timeline Adjustment Agreement that is binding as the new performance requirements for the building. The Agreement will include:

- details of the retrofit plan
- agreed-upon timeline
- reporting requirements
- penalties that would be assessed if the plan is not completed as agreed (usually a higher level than regular compliance because extra time has been approved – see Penalties Section 6)

4.4 Residential Condominium Building ACO

Residential condominium homeowner associations (HOAs), boards, or a group of condominium owners may apply to perform specific energy efficiency measures in all common spaces in the building. This includes all common/shared interior and exterior spaces, including but not limited to parking areas, exterior lighting, common/shared spaces inside the building, emergency lighting, exit signs, mechanical rooms, shared outdoor/patio spaces, etc. In this ACO, no actions would be required for individual condominium units.

The required energy efficiency measures in common spaces are:

1. 100% of the lighting load of common spaces provided by LED lights
2. Occupancy sensors (with or without step-dimming) installed on all lighting in common spaces as allowed by the CCD's Building and Fire Code
3. 100% of annual electricity usage for common spaces provided by on- or off-site renewables, determined either by 100% coverage of a utility meter if common spaces are on a separate meter, or square footage of that common space compared to the whole building square footage (example: if common space is 10% of the building square footage, renewable power generation must covered 10% of the aggregated whole building annual electricity usage. Use of on- or off-site renewables shall follow the requirements as outlined in Section 3.2, energy use.

4.4.1 Application Details

The submission for the Residential Condominium Building ACO includes:

- Online application form (sample shown in Appendix I)
- A completed lighting audit as per the requirements describe in Section 3.1. The audit must detail estimated annual energy savings from the installation of LED lighting and occupancy sensors.
- A copy of the relevant certification of the energy auditor that completed the audit
- A retrofit plan that articulates the common spaces covered under this option, what energy efficiency measures will be installed, when the improvements will be made, an estimate of what percent of the building square footage is common space, and what form of renewable power generation will be installed/purchased to cover the renewable requirement.
- Total annual electricity usage for the baseline year, reported using ESPM's Statement of Energy Performance, an example of which is provided in Appendix E.
- Other supporting documentation that would help CASR make a determination

4.4.2 Residential Condominium Building ACO Agreement

After CASR has completed its review of the submission, it will use the agreed-upon retrofit plan to create a Residential Condominium Option Agreement that is binding as the new performance requirement(s) for the building. The Agreement will include:

- Compliance deadline
- Details of the retrofit plan
- Details of the required compliance documentation to be submitted via online form

4.4.3 Demonstration of Compliance

Demonstration of compliance for this ACO includes documentation from a certified, third party lighting professional (following the lighting audit template provided in Appendix B) verifying that:

- a minimum of 100% of the lighting load of the building's common spaces, as measured in kilowatt-hours, is provided by LED lights, and
- occupancy sensors (with or without step-dimming) have been installed on all lighting in common spaces as allowed by the CCD's Building & Fire Code.

Renewable Power Generation documentation submitted should follow the instructions in Section 3.2, *with the exception that the ESPM Statement of Energy Performance only requires electricity usage and not gas usage.*

CASR may conduct on-site audits of buildings or request copies of contracts or generation reports to verify compliance.

4.5 15% Energy Use Reduction ACO

This alternate compliance option is for building owners that would like to implement another energy efficiency upgrade to their building (other than LED lighting or renewable energy options) that would result in a minimum of a 15% reduction in annual site energy use for a continuous 12-month period after the energy efficiency measure is completed. This can include any capital improvement that results in an estimated minimum of a 15% reduction in annual energy use (annual energy use is the total energy use of all fuel types) but cannot be an operational improvement which would require ongoing energy benchmarking to confirm, nor can it be an improvement which involves the installation of fossil fuel-powered space and water heating equipment. This ACO requires an energy audit (as per Section 4.2) to identify potential energy efficiency upgrades and estimated energy use reductions. These requests will be considered on a case-by-case basis.

4.5.1 Application Details

The application for the 15% Energy Use Reduction Adjustment includes:

1. Online application (sample shown in Appendix J)
2. An energy audit that meets minimum requirements in Section 4.2 specifically highlighting the estimated energy savings from potential energy efficiency upgrades. Estimated energy savings may use the total annual site energy use for any calendar year from 2022 onwards as a baseline for calculations.
3. Total annual site energy use for the baseline year, reported using ESPM's Statement of Energy Performance, an example of which is provided in Appendix E.
4. A retrofit plan (Appendix G) articulating which improvements will be made in the building, when such improvements will be made, and how those improvements will result in the building reaching a minimum 15% reduction in annual energy use.
5. A copy of the relevant certification of the energy auditor that completed the audit

6. Other supporting documentation that would help CASR make a determination

CASR will review the application to make a decision on allowing an alternate energy efficiency measure. CASR may schedule a meeting with the building owner to discuss opportunities presented on the ASHRAE Level 1 spreadsheet in reference to the 15% reduction goal to make a final determination.

4.5.2 15% Energy Use Reduction Agreement

After CASR has completed its review of the submission, it will use the agreed-upon retrofit plan to create a 15% Energy Use Reduction Option Agreement that is binding as the new performance requirement(s) for the building. The Agreement will include:

- Compliance deadline
- Details of the retrofit plan
- Details of the required compliance documentation to be submitted via online form

4.5.3 Demonstration of Compliance

Demonstration of compliance for this ACO will included at a minimum:

- Copy of original invoice which confirms purchase and installation of all improvements articulated in the retrofit plan
- Copy of any relevant building permits required for installation of approved energy efficiency upgrades from the CPD

Benchmarking information for 12 continuous months after installation of approved energy efficiency measures to verify a minimum of 15% energy use reduction. Total annual site energy use for this year shall be reported using ESPM's Statement of Energy Performance, an example of which is provided in Appendix E. For an example of how to produce a Statement of Energy Performance, please refer to Section 3.2.1. Additional support on benchmarking energy usage with Energy Star Portfolio Manager, please visit CASR's *Benchmarking Help* web site:

<https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency/High-Performance-Buildings-and-Homes/Energize-Denver-Hub/Buildings-25000-sq-ft-or-Larger/Benchmarking-Requirements#section-2>. *Benchmarking Help* web site: <https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency/High-Performance-Buildings-and-Homes/Energize-Denver-Hub/Buildings-25000-sq-ft-or-Larger/Benchmarking-Requirements#section-2>. *Benchmarking Help* web site.

5 Disclosure Upon Sale

When the building is listed for sale, including any listings, notices, advertisements of sale, term sheets, and contracts of sale, the current owner is required to disclose the building's compliance status with the performance requirements to a prospective buyer prior to the sale of the Covered Building.

When a building changes ownership, the previous Owner must transfer any information pertaining to the building's progress made towards satisfying its performance requirements. Information to transfer to the new building owner should include (if applicable):

- any energy use data or energy audits completed on the building
- any information, plans, or reports submitted to CASR for compliance

- compliance status of the building
- any approved alternate compliance pathways
- any penalties assessed

6 Penalties and Enforcement

6.1 Penalties

CASR prefers that building owners invest in their buildings to reach compliance requirements instead of paying penalties to the city and is committed to supporting building owners with their efforts and exploring the flexibility that alternate compliance options can afford. As recommended by the Task Force, CASR will “focus its efforts on doing everything it can to support those out of compliance in quickly putting a plan in place and implementing upgrades as soon as possible, rather than simply fining those who missed their compliance target.” CASR is structuring the penalties to be slightly higher than the average cost of compliance to assist project and facility managers with getting approvals on projects with good returns from energy savings.

For the performance requirements, a penalty shall be assessed if the building does not comply with the Building Performance Requirements as outlined in Section 3 based on full non-compliance, or partial compliance with either the lighting or renewable requirements.

There are other reasons why a penalty may be assessed:

- Errors or inaccuracies in data the Owner has submitted to CASR to demonstrate compliance, e.g. energy use data, solar generation data, building information, calculations, or missing documentation to prove compliance. The Owner shall correct such errors, submit the updated compliance submission to CASR, and notify CASR of the updated submission. Failure to correct the errors would be considered a failure to submit a complete and proof of compliance.
- Knowingly withholding information or submitting inaccurate information that affects verification of compliance status
- Building owner does not satisfy the requirements of an Alternate Compliance agreement

6.1.1 Penalty Assessment

For buildings that do not submit any compliance documentation, the gross floor area (GFA) of the covered building, as recorded by CCD’s Office of the Assessor, will be multiplied by the penalty level in Table 4 to calculate the penalty amount:

$$(\text{GFA}) * (\text{Penalty Level}) = \$ \text{penalty amount}$$

For buildings in partial compliance with the LED lighting requirements, the percent of LED lighting not in compliance will be converted to a corresponding square footage equivalent to multiply by the penalty level in Table 4 to calculate the penalty amount:

$$(\text{GFA not in compliance}) * (\text{penalty level}) = \$ \text{penalty amount}$$

For buildings in partial compliance with the renewable energy requirements, the kBtu of the annual site energy use not covered by renewable power generation will be multiplied by the penalty level in Table 4 to calculate the penalty amount:

$$(\text{kBtu not covered by renewables}) * (\text{penalty level}) = \$ \text{penalty amount}$$

For buildings that have an approved alternate compliance option, penalties would be assessed according to the ACO agreement.

6.1.2 Penalty Schedule

Energize Denver's Task Force recommended that "fines should be somewhat more than the cost of compliance and should be heftier for buildings with an alternate compliance timeline. The compliance obligation and status of the building must be tied to the building with disclosure requirements, an attachment to the deed or a development agreement that attaches to the parcel." The Energize Denver Ordinance enables CASR to assess a civil penalty of "up to \$0.70 for each required kBtu reduction per year that the owner's covered building fails to achieve in that year." Based on an analysis of cost of compliance for the prescriptive requirements for buildings 5,000 – 24,999 square feet, CASR will assess a penalty of \$0.33/kBtu not achieved, or an equivalent \$1.60 per square foot of the building.

Table 4 -

Type	Penalty Level	Assessment Period
Failure to correct errors, knowingly withholding or inaccurate information	\$2,000	At time of failure
Penalty for no action taken	\$1.60/square foot of the covered building	One time, levied in the calendar year following the compliance deadline
Penalty for partial LED lighting compliance	\$1.60/square foot not in compliance	One time, levied in the calendar year following the compliance deadline
Penalty for partial renewable energy compliance	\$0.33/kBtu not achieved	One time, levied in the calendar year following the compliance deadline
Failure to complete requirements as agreed in Alternate Compliance Agreement	As outlined in agreement	As outlined in agreement

6.1.3 Enforcement

Building owners will be subject to a civil penalty, in accordance with Table 4, if the requirements have not been achieved or compliance has not been verified. The following is an outline of the steps for penalty assessments:

1. Notice of Violation: Once the compliance evaluation has been completed for a covered building (after the compliance deadline), CASR will issue a notice of violation. The building owner will have thirty (30) days to file an appeal of the notice of violation. Please see Section 5.2.3 of the *Energize Denver Benchmarking and Energy Performance Requirements for Buildings 25,000 Square Feet and Larger Technical Guidance* for information on the appeals process.
2. Civil Penalty – Administrative Citation: If the building owner has not filed an appeal, an administrative citation is issued. The building owner has one hundred eighty (180) days to pay the penalty with the manager of finance.
3. Property Lien: If a building owner fails to pay the required amount within one hundred eighty (180) days, the civil penalty will be considered a debt to the city until paid in full. The debt is a perpetual lien on the property, and is superior and prior to all other liens, regardless of their dates of recordation, except for liens for general taxes and prior special assessments, until the civil penalty owed, delinquent interest, and recording fees have been paid in full.

Appendix A – Sample Exemption Application for Demolition of Building

The information below is a sample of the questions asked for the application for an exemption due to demolition. Please see the Energize Denver Hub website for the actual submission form.

Section 1 – Personal Information

- First Name:
- Last Name:
- Phone Number:
- Email Address:
- Relationship to Building:
 - Owner
 - HOA
 - Property/Facility Manager
 - Building Engineer
 - Energy Manager
 - Third-Party Contractor
 - Other
- Company Name:

Section 2 – Building Information

- Denver Building ID:
- Building Address:
- Building Address 2:
- Building City:
- Building Zip Code:
- Building State:

Section 3 – Supporting documentation

- Supporting documentation [file upload option] for documents such as total demolition application or stamped drawings

Section 4 – Signatures and Contact Information

I, the undersigned authorized representative of the building owner, affirm and attest to the accuracy, truthfulness, and completeness of the statements of material fact provided in this form.

Appendix B – Lighting Audit Template

The image below is a snapshot of the Lighting Audit Template spreadsheet for buildings that need to complete lighting upgrades to be compliant. Please see the Energize Denver Hub website for the downloadable template file.

Building Performance Ordinance Lighting Compliance Template												
Building ID:												
Building Address:												
City												
Zip Code												
Name of Person Completing Template:												
Email of Person Completing Template:												
Instructions:			1. List all locations in the building (interior, exterior & parking spaces attached to building's electrical meter(s)) 2. List all existing lighting fixtures, including lamp type, quantity, and wattage. For watts per fixture enter the luminaire wattage for installed lamp and ballast using manufacturer's data. 3. Input operational hours of lighting fixtures based upon average usage over a 1-year period 4. Choose Automatic Time Switch from the drop down menu 5. Choose Occupancy Sensor for the drop down menu 6. Choose Daylight Controls from the drop down menu 7. Input energy costs based upon applicable Xcel Energy electricity rates as per date of the audit 8. If building is multi-family and only a percentage of units are visited, multiple units can be combined on a single line if fixtures, quantity, watts and hours of operation are equal 9. If the Percentage of Lighting Load Provided by LEDs (cell K24) is greater than or equal to 90%, the building is in compliance and the Table 2 may be left blank.									
Table 1: Lighting Audit for Existing Lighting Fixtures												
Location Identifier	Location Type	Existing Fixture	Is Fixture LED? (Yes/No)	Occupancy Sensor	Photosensor	Automatic Time Switch	Quantity	Watts	Annual Hours of Operation (per fixture)	Annual Consumption (kWh)	cost/kWh	Annual Energy Cost
1	Interior	150 Watt HID	No				15	175	4368	11,466	\$0.12	\$1,375.92
Total Existing kWh Consumption:										11,466	\$0.12	\$1,375.92
Total Existing kWh provided by LEDs:										0		
Percentage of Lighting Load Provided by LEDs:										0%		
Table 2: Proposed Replacement Fixtures to Meet Compliance Requirements												
Location Identifier	Location Type	Replacement Fixture	Is Fixture LED? (Yes/No)	Occupancy Sensor	Photosensor	Automatic Time Switch	Quantity	Watts	Annual Hours of Operation (per fixture)	Annual Consumption (kWh)	cost/kWh	Annual Energy Cost
1	Interior	40 Watt LED High Bay	Yes				15	40	4368	2,621	\$0.12	\$314.50
Total Existing kWh Consumption:										2,621	\$0.12	\$314.50
Total Existing kWh provided by LEDs:										2,621		
Percentage of Lighting Load Provided by LEDs:										100%		
Total Estimated kWh saved from LEDs		8,845 kWh										

Appendix C – Signed Attestation from Lighting Specialist

The information below is a snapshot of the template for the signed attestation document for the lighting requirements. Please see the Energize Denver Hub website for the downloadable template file.

Letter of Attestation for LED Lighting Compliance

Date:

This note is to confirm that *[insert name of service provider completing lighting audit/verification template]* completed the lighting audit on *[insert date of audit]* for the following building:

- Building ID: *[insert Building ID]*
- Building Address: *[insert complete building address]*

I confirm that the above-referenced building *(please select the appropriate option)*:

- ☐ Utilizes LED lighting for greater than or equal to 90% of the total lighting load
- ☐ Utilizes LED lighting for less than 90% of the total lighting load

The lighting specialist completing this letter:

- ☐ Completed the lighting audit and completed lighting upgrades to the building
- ☐ Completed the lighting audit only (i.e. lighting work was completed by another service provider)

I declare that the above statements are true and accurate to the best of my knowledge, information and belief.

Sincerely,

Insert signature

[Insert name of Service Provider or Project Lead]

Certification held by Lighting Specialist completing this letter*:

- ☐ Certified Lighting Consultant through the American Lighting Association
- ☐ Lighting Certification from the National Council on Qualifications for the Lighting Professions
- ☐ National Association of Innovative Lighting Distributors (NAILD) Lighting Specialist II (LSII) designation
- ☐ Electrical contractor licensed in the State of Colorado (only permissible if electrical contractor completed lighting upgrades to the building)

**Please upload a copy of your relevant lighting certification alongside this document.*

Appendix E – Sample ESPM Statement of Energy Performance



ENERGY STAR® Statement of Energy Performance

96

ENERGY STAR®
Score¹

Denver Office Building

Primary Property Type: Office
Gross Floor Area (ft²): 50,000
Built: 1900

For Year Ending: July 31, 2022
Date Generated: February 09, 2023

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information		
Property Address	Property Owner	Primary Contact
Denver Office Building 201 W. Colfax Ave., 7th fl Denver, Colorado 80111	_____ () - _____	_____ () - _____
Property ID: 20652480		

Energy Consumption and Energy Use Intensity (EUI)			
Site EUI	Annual Energy by Fuel		National Median Comparison
26.2 kBtu/ft²	Electric - Grid (kBtu)	921,240 (70%)	National Median Site EUI (kBtu/ft²) 73.4
	Natural Gas (kBtu)	390,000 (30%)	National Median Source EUI (kBtu/ft²) 167.3
			% Diff from National Median Source EUI -64%
Source EUI			Annual Emissions
59.8 kBtu/ft²			Greenhouse Gas Emissions (Metric Tons CO2e/year) 162

Signature & Stamp of Verifying Professional

I _____ (Name) verify that the above information is true and correct to the best of my knowledge.

LP Signature: _____ Date: _____

Licensed Professional

() - _____

Professional Engineer or Registered
Architect Stamp
(if applicable)

Appendix F – Statement of On-Site Renewable Energy Performance

The information below is a snapshot of the template for the renewable energy performance submission. Please see the Energize Denver Hub website for the downloadable template file.

Statement of On-Site Renewable Energy Performance

Date:

This note is to confirm that *[insert name of service provider completing review of renewable energy performance]* completed the review of on-site renewable energy performance *[insert date of review]* for the following building:

- Building ID: *[insert Building ID]*
- Building Address: *[insert complete building address]*
- 12-month period of renewable energy production: *[insert date range]*
- Total kBtu of renewable energy produced during 12-month period: *[insert total kilowatt-hours]*

I confirm that the above-referenced building *(please select the appropriate option)*:

- ☐ Produces on-site renewable energy greater than or equal to 20% of this building's annual site energy use
- ☐ Produces on-site renewable energy less than 20% of this building's annual site energy use

The service provider completing this letter:

- ☐ Performed the review of on-site renewable energy performance and installed the on-site renewable energy facilities for the building
- ☐ Completed the review of on-site renewable energy performance only (i.e. installation of system was completed by another service provider)

I declare that the above statements are true and accurate to the best of my knowledge, information and belief.

Sincerely,

Insert signature

[Insert name of Service Provider or Project Lead]

[Insert name of company]

Appendix G – Retrofit Plan Template

The information below is a snapshot of the retrofit plan template for building owners who wish to pursue the 15% Energy Use Reduction or Timeline Adjustment ACO. It is intended to give CASR a summary look into what it going to be retrofitted and the implementation timeline. The plan should be a maximum of 5 pages. Please see the Energize Denver Hub website for the downloadable template file.

The Retrofit Plan (Word or PDF document for submission) must cover four things:

- A detailed description of the improvements and upgrades to be performed to achieve the savings required for the selected alternate compliance option
 - 15% Energy Use Reduction ACO: An energy audit (as per Section 4.2) that details the at least 15% in estimated energy savings to be gained from the improvements
 - Timeline Adjustment ACO: vendor proposals or plans to upgrade lighting or install renewable power generation.
- A timeline for the improvements and upgrades
 - Create a timeline and list each item and its proposed start/completion dates
 - If the completion date for any activity is beyond the compliance deadline for the building, provide an explanation of why improvements cannot be completed prior to deadline
- A proposal for documentation to be submitted to CASR to demonstrate that the improvements and upgrades were completed as agreed. Describe all documentation that will be supplied to verify that the retrofit plan was completed according to the energy audit recommendations and the improvements listed in point (I) above – examples include invoices, purchase orders, receipts, etc.

Appendix H – Sample Application for Timeline Adjustment ACO

The information below is a sample of the questions asked in the application for the Timeline Adjustment alternate compliance option. Please see the Energize Denver Hub website for the actual submission form.

Section 1 – Personal Information

- First Name:
- Last Name:
- Phone Number:
- Email Address:
- Relationship to Building:
- Owner
- HOA
- Property/Facility Manager
- Building Engineer
- Energy Manager
- Third Party Contractor
- Other

Section 2 – Building Information

- Denver Building ID
- Building Address
- Building Address 2
- Building City
- Building Zip Code
- Building State:

Section 3 – Timeline Adjustment Application

Reason(s) for Timeline Adjustment request (check all that apply)

- Planning for Major Renovation
- Landmark Preservation Commission review process means the work won't be done in time for a compliance deadline
- Financial distress (as described in the 5,000 – 24,999 sq ft building performance requirements Technical Guidance Manual)
- Change of building ownership
- Restrictions based on lease agreement(s) with current building tenant(s)
- Buildings with manufacturing, agricultural or other activities that would require interruption to production to implement compliance measures
- Delays in obtaining an interconnection agreement from Xcel Energy for on-site renewable energy systems that have been installed
- Multiple buildings with different compliance deadlines are part of a single Energy Performance Contract through an Energy Services Company (ESCO)
- Other reasons that will be considered by CASR on a case-by-case basis

For each reason checked, provide additional context on why the adjustment is needed: [text box]

File Upload Section:

- Retrofit Plan [upload file(s)]
- Documentation that supports the timeline extension request [upload file(s)]

Appendix I – Sample Application for Residential Condominium Building ACO

The information below is a sample of the questions asked in the application for the Residential Condominium Building alternate compliance option. Please see the Energize Denver Hub website for the actual submission form.

Section 1 – Personal Information

- First Name:
- Last Name:
- Phone Number:
- Email Address:
- Relationship to Building:
- Owner
- HOA
- Property/Facility Manager
- Building Engineer
- Energy Manager
- Third Party Contractor
- Other

Section 2 – Building Information

- Denver Building ID
- Building Address
- Building Address 2
- Building City
- Building Zip Code
- Building State:

Section 3 – Alternate Compliance Application

File Upload Section:

- ASHRAE Level 1 audit report [*upload file(s)*]
- Copy of relevant certification of the energy auditor (if not included in the audit report) [*upload file(s)*]
- Retrofit Plan [*upload file(s)*]
- Total annual site energy use report [*upload file(s)*]
- Additional documentation that supports this alternate compliance request [*upload file(s)*]

Appendix J – Sample Application for 15% Energy Use Reduction ACO

The information below is a sample of the questions asked in the application for the 15% Energy Use Reduction alternate compliance option. Please see the Energize Denver Hub website for the actual submission form.

Section 1 – Personal Information

- First Name:
- Last Name:
- Phone Number:
- Email Address:
- Relationship to Building:
- Owner
- HOA
- Property/Facility Manager
- Building Engineer
- Energy Manager
- Third Party Contractor
- Other

Section 2 – Building Information

- Denver Building ID
- Building Address
- Building Address 2
- Building City
- Building Zip Code
- Building State:

Section 3 – Alternate Compliance Application

File Upload Section:

- ASHRAE Level 1 audit report [*upload file(s)*]
- Copy of relevant certification of the energy auditor (if not included in the audit report) [*upload file(s)*]
- Retrofit Plan [*upload file(s)*]
- Total annual site energy use report [*upload file(s)*]
- Additional documentation that supports this alternate compliance request [*upload file(s)*]