



Energize Denver Performance Requirements for Buildings 5,000 – 24,999 sq. ft.

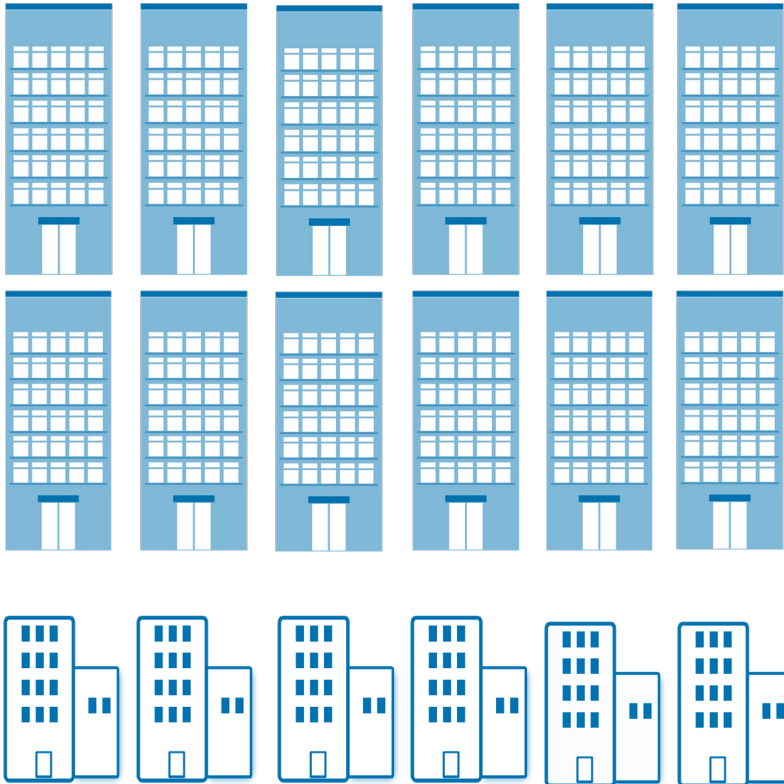
August 2023

Agenda

- Background
- Requirements for building owners
- How to demonstrate compliance:
 - Lighting
 - Renewable energy
- Alternate compliance options
- Support programs & Help Desk
- Q&A

Background

Commercial and Multifamily Buildings are 49% of Denver's GHG Emissions



> 25,000 sq ft:

- 82% of sq. footage
- 3,000 buildings

< 25,000 sq ft:

- 18% of sq. footage
- 14,000 buildings

Denver has committed to eliminate greenhouse gas emissions by 2040. For buildings and homes, this means our goals are:

- All **new** buildings and homes “net zero energy” by 2030
- All **existing** buildings and homes “net zero energy” by 2040

Energize Denver Ordinance Sections

Benchmarking

- Implemented by CASR
- Buildings 25K+ sq. ft. submit energy data annually

Performance

- Implemented by CASR
- Minimum energy efficiency requirements for buildings 25K+ sq. ft, and prescriptive requirements for buildings 5,000 to under 25K sq. ft.
- Improvements to energy efficiency and increase renewables

Electrification

- Implemented by CPD
- All Commercial and Multifamily Buildings
- Partial Electrification of Space and Water Heat upon System Replacement, when Cost Effective

Benefits for Building Owners and Occupants

As the buildings improve their energy use and lower the cost of operations, Denver will become a more competitive, attractive city for businesses and residents.

Additional benefits:

- Reduced energy bills and cost of operations
- Improved return on investment for building owners
- Reduced maintenance costs
- Higher property values
- Improved indoor and outdoor air quality

Stakeholder Engagement



Outreach sessions (Oct 2022 – June 2023)

- 22 virtual and in-person discussion groups with building owners
- 30 key informant interviews (public sector, market actors, non-profits)
- 4 meetings targeted towards under-resourced building owners
- 2 roundtable discussions with service providers

Impact of stakeholder engagement:

- Refined rules and draft compliance structure
- Created 2 alternate compliance options
- Identified preferred communication methods and most-requested support mechanisms for building owners

Prescriptive Requirements

Commercial, Multifamily, Institutional, & Municipal buildings
5,000 – 24,999 square feet

Prescriptive Requirements

- Perform 1 of these options:
 1. Certify that a minimum of 90% of the lighting load is provided by LED lighting
 2. Source 20% of annual site energy usage from on- or off-site renewables

Prescriptive Requirements

- Requirements apply to buildings with Certificate of Occupancy or Temporary Certificate of Occupancy on or before November 22, 2021

Compliance Timelines

Timeline adjustments available for specific circumstances

Building Size (sq. ft.)	Compliance Deadline
15,001 - 24,999	December 31, 2025
10,001 - 15,000	December 31, 2026
5,000 - 10,000	December 31, 2027

Compliance Pathway #1: LED Lighting

Lighting – 3 Compliance Pathways

1. Buildings constructed or completely remodeled under the 2019 (or later) Denver Building & Fire Code
2. Buildings that must complete a lighting upgrade
3. Buildings that already switched to LEDs

1. For Recently Permitted Buildings

1. If your building was constructed or completely remodeled under the 2019 Building and Fire Code or later (on or after 8/1/2020), you are already in compliance.
2. Submit the final construction permit approved and recorded by the City and County of Denver's Office of Community Planning and Development (CPD) via our [Online Submission Form](#).

2. For buildings performing lighting upgrades

1. Find a qualified lighting professional to work with. Refer to the [Lighting Service Providers page](#) for more information and to find a lighting vendor trained in the Ordinance requirements.
2. Conduct an initial lighting audit using the [Lighting Audit Template](#).
3. Upgrade necessary interior and exterior lighting. Obtain an electrical permit if necessary.
4. Work with the service provider to completely fill out the [Lighting Audit Template](#) and the [Letter of Attestation for Lighting Compliance](#).
5. Submit your [Lighting Audit Template](#), [Letter of Attestation of Lighting Compliance](#), and a copy of the lighting professional's certification to the City and County of Denver via [our online submission form](#).

Compliance Pathway for buildings performing lighting upgrades – who can verify compliance?

- 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

*Copy of certification must be submitted with compliance documentation

3. For buildings already in compliance

1. Find a qualified lighting professional to work with. Refer to the [Lighting Service Providers page](#) for more information and to find a [lighting vendor trained in the Ordinance requirements](#).
2. Conduct a lighting audit using the [Lighting Verification Template](#). Work with the professional to completely fill out the template and the [Letter of Attestation for Lighting Compliance](#).
3. Submit your [Lighting Verification Template](#), [Letter of Attestation of Lighting Compliance](#), and a copy of the lighting professional's certification to the City and County of Denver via [our online submission form](#).

Compliance Pathway for buildings not performing lighting upgrades – who can verify compliance?

- 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

*Copy of certification must be submitted with compliance documentation



Renewable Energy Pathway

Renewable Energy – 3 Compliance Pathways

1. On-site renewable power generation
2. Off-site renewable power generation owned by the building owner
3. Off-site renewable power generation owned by a third-party



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/ft ²	Electric - Grid (kBtu) 921,240 (70%) Natural Gas (kBtu) 390,000 (30%)	National Median Site EUI (kBtu/ft ²) National Median Source EUI (kBtu/ft ²) % Diff from National Median Source EUI	73.4 167.3 -64%
Source EUI	Annual Emissions	Greenhouse Gas Emissions (Metric Tons CO ₂ e/year)	162
59.8 kBtu/ft ²			

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)

ESPM Statement of Energy Performance

On-site Renewable Energy

1. Calculate your annual site energy usage using [Energy Star Statement of Energy Performance](#).
2. Find a qualified renewable energy installer to work with. Refer to the [Service Providers page](#) for more information and to find a [renewable energy vendor trained in the Ordinance requirements](#). Ask about rebates & tax credits!
3. Install on-site renewable energy generation. Obtain the necessary permits and Interconnection Agreement.
4. Work with the installer to completely fill out [the necessary compliance documentation](#).
5. Submit compliance documentation to the City and County of Denver via [our online submission form](#).

On/Off-site renewable energy (owned)

ESPM Statement of Energy Performance

PDF of generated document

Ownership document

Provide proof that the solar or wind installation is installed, most likely an invoice and interconnection agreement

Power generation document

Installer invoice or installation contract detailing estimated annual kWh generated
Signed On-Site Renewables Statement of Energy Performance
Self-generated report detailing annual kWh generated

Off-site Renewable Energy

1. Calculate your annual site energy usage using [Energy Star Statement of Energy Performance](#).
2. Find an off-site renewable energy provider to work with. You may want to check out [Xcel Energy's options](#), [Solar United Neighbors](#) and [Energy Sage](#) to find available off-site renewable energy options.
3. Subscribe to an off-site renewable energy provider. The minimum length of subscription contract is 5 years. Month-to-month subscriptions not allowable.
4. Submit compliance documentation to the City and County of Denver via [our online submission form](#).

Off-site renewable energy (third party)

ESPM Statement of Energy Performance

PDF of generated document

Ownership & power generation document

Copy of subscription contract detailing annual kWh purchased
Subscription contract must be minimum of 5 years in length



Alternate Compliance Options (ACOs)

Submission Deadline

- ACO reviews may take some time and multiple conversations to come to an agreement, so CASR encourages building owners to not wait until the deadline to submit their application.

If the building's compliance deadline is....	The application deadline is...
December 31, 2025	December 31, 2024
December 31, 2026	December 31, 2025
December 31, 2027	December 31, 2026



Timeline Extension Alternate Compliance Option (ACO)

Timeline Adjustment

Apply for a timeline for a variety of reasons that could make meeting your deadline difficult.

- Planning for major renovation
- Change of building ownership
- Restrictions based on lease agreement(s) with current building tenant(s)
- Landmark Preservation Commission review process delays
- Financial distress
- Buildings with industrial, agricultural or other activities that would require an interruption in production
- Multiple buildings with different compliance deadlines are part of a single Energy Performance Contract through an ESCO
- Delays in obtaining an interconnection agreement from Xcel Energy for on-site renewable energy systems
- Other reasons on a case-by-case basis

15% Energy Use Reduction Alternate Compliance Option (ACO)

15% Energy Use Reduction ACO

Implement energy efficiency improvement(s) that will result in a minimum of a 15% reduction in annual site energy use

Notes:

- Must be capital improvement (operational improvements will not be approved)
- Capital improvements that involve installation of fossil fuel-powered space & water heating equipment will not be approved
- Confirmation of 15% energy use reduction through 12 months of energy benchmarking

Application – 15% Energy Use Reduction ACO

Apply for the 15% Energy Use Reduction ACO [via our online submission form.](#)

Application Requirements:

- Online application form
- ASHRAE Level 1 energy audit
- Retrofit plan
- Annual site energy usage (ESPM Statement of Energy Performance)
- Any other supporting documentation



Penalties

Penalties

- CASR's goal is for buildings to invest in energy efficiency, not pay fines
- CASR is committed to supporting building owners with their efforts and exploring the flexibility that **alternate compliance options** can afford.
- CASR is committed to assisting under-resourced buildings with designing and implementing compliance plans so that penalties are not imposed.

No Compliance Action Taken

Property owner fined at \$1.60 per square foot of building's gross floor area.

$$(GFA) * (Cost/square\ foot) = \$\text{ penalty amount}$$

Gross Floor Area of Building (sq. ft.)	Penalty Amount per sq. ft.	Total Penalty Amount
5,000	\$1.60	\$8,000.00
10,000	\$1.60	\$16,000.00
15,000	\$1.60	\$24,000.00
20,000	\$1.60	\$32,000.00
24,999	\$1.60	\$39,998.40



Support and Incentives

Energize Denver Hub

- Resources and technical assistance available through the [Energize Denver Hub](https://denvergov.org/energize-denver)
- Materials: How-to guides, check lists, etc.
- denvergov.org/energize-denver

Buildings 5,000-24,999 sq. ft.

Denver requires all buildings 5,000-24,999 sq. ft. and larger to follow two of the three sections of the [Energize Denver Ordinance](#):

- [Energy performance requirements to improve lighting or install renewable energy](#)
- [Electrification requirements when replacing space and water heating equipment](#)

Buildings of this size are NOT required to provide annual Benchmarking data.

[Sign up for our Newsletter](#) [Contact Us](#) [List of Covered Buildings \(PDF, 2MB\)](#)




Claim My Building

If you own or manage a building 5,000-24,999 sq. ft., we need to hear from you! We want to make sure we have correct and up-to-date contact information for you and your building. Confirming your information is required for anyone who owns or manages a building of this size.



Performance Requirements

Buildings 5,000-24,999 sq. ft. are required to meet performance requirements around their building's lighting or energy source. These requirements will phase in over time, depending on the building's size.




Energize Denver Electrification Program

Replacing A/C or space and water heating equipment? Learn about how heat pumps are better and get a heat pump rebate while they last!



Frequently Asked Questions

Can't find the answer to your question? Check here to see some of the questions we get asked the most about Energize Denver requirements for large buildings.



Help, Resources, and Incentives

Find industry playbooks for professionals, financing and incentives to help you meet the Energize Denver requirements, and more information to help you understand and comply with Energize Denver.



Requirements for New Construction and Major Renovations

Looking to comply with the 2022 Denver Energy Code or achieve even higher levels of energy performance? Learn about the energy code and find resources to help you at every stage of your project.

Compliance Guide

- Not sure where to start?
Step-by-step for the entire compliance process
- Links to all forms & resources



Compliance Guide

Understanding the performance requirements for your building can be challenging. We have built this simple step-by-step guide to help walk you through the process so that you can navigate the city's requirements for your building with confidence.

1. Claim Your Building

The first step in being able to comply with the requirements is to confirm your building's address and contact information.

[Claim Your Building Form](#)

2. Find Your Building ID

The Office of Climate Action, Sustainability and Resiliency sent letters to all building owners and HOAs in late 2022. This letter included a unique building ID for all buildings we believe are subject to these requirements. You'll need this ID number when you submit your compliance documentation to the city. If you lost or never received your unique building ID(s), you can use the building lookup tool. Just enter your building's address and the tool will show you your Building ID number.

Stay in Touch!

[Sign up for our newsletter](#)

Contact Us

Help for Buildings 5,000 - 24,999 sq. ft.
energizesmallbuildings@denvergov.org
Or call: (844) 536-4528

Back to Homepage

[Energize Denver Hub](#)

Technical Guidance Document

- A more detailed technical document
- Relevant sections are referenced in the Compliance Guide, and as such serves as a required companion document
- Detailed description of penalty structure
- [Technical Guidance Document Link](#)

Service Provider Directory

- Provides a [list of individuals](#) that have completed the city's performance requirements trainings
- The service providers' qualifications have not been vetted by the city and we do not endorse their services.

Lighting

1 video

Quiz

Renewable Energy

1 video

Quiz

Alternate Compliance

1 video

1 quiz

What is available for my building?

Check out our [Resource Guide](#) for building owners!

Don't spend hours navigating web sites to figure out what rebates, free programs and financing options may exist for your specific building type!

Audits, Rebates, Loans, Grants, and Guidance



Warehouses

See incentives, rebates, and other services available to owners and managers of warehouses.



Apartments

Rebates, funding, loans, and guidance for Apartment building owners or managers.



Residential Condominiums

Condo owners, managers, or HOA boards can find opportunities for free energy audits, rebates, loans, and guidance.



Commercial Offices

Owners and managers of office buildings can find funding, loans, rebates, and guidance here.



Commercial Retail

Owners and managers of commercial retail buildings can find links to free energy audits, rebates, grants, loans, and guidance that will help you meet your Energize Denver and sustainability targets.



Restaurants

There are many restaurant-specific resources to help you get free energy audits, equipment and lighting rebates, grants, loans, and other help for your energy efficiency upgrades.

Free Audits & Direct Installs for Commercial



The screenshot shows the Xcel Energy website interface. At the top, there is a navigation bar with the Xcel Energy logo on the left and links for 'Pay Bill', 'Start/Stop Service', 'Outages', 'Customer Service', and 'Sign In' on the right. Below this is a secondary navigation bar with dropdown menus for 'Residential Customers', 'Business Customers', 'Partner Resources', and 'Clean Energy & EVs'. The main content area has a light gray background with a 'COST SAVINGS' indicator. The primary heading is 'Business Energy Assessments' in a large, bold, black font. Below the heading is a sub-heading: 'We'll determine the best energy assessment solution for your business size and provide low-cost services customized to your energy needs.' A breadcrumb trail reads: 'Home > Business Services > Cost Savings > Business Energy Assessments'. The text below explains the service: 'We offer a suite of energy assessments designed to fit businesses of any size. Before our energy advisor contacts you, we'll identify which assessment is best for your business using our Energy Assessment Match. After confirming the details with you, we will guide you through the energy assessment process and offer advisory services along the way.' A section titled 'Who' follows, stating: 'If you are an Xcel Energy business customer and would like to get started finding the right sized assessment, complete our [Energy Assessment Match Questionnaire](#). This is a perfect first step to uncover ways of minimizing energy wasters and improving energy efficiency.'

Financing thru CCEF



cocleanenergyfund.com

Energy PAL

Loan Amount: Up to \$500K

Term: 2-10 Yrs.

Rate: Below market rates,
dependent on term

Repayment: Monthly
principal and interest
payments

Who is Eligible for an Energy Project Accelerator Loan (Energy PAL)?

CCEF's Energy Project Accelerator Loan, or Energy PAL supports clean energy and energy efficiency improvement projects that result in reduced utility costs, reduced greenhouse gas emissions, increased electrification or electrification readiness, and/or increased renewable energy generation. The Energy PAL is a good fit for small commercial borrowers, municipalities, and nonprofits seeking equipment financing.

Financing thru C-PACE



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BUILDING OWNERS // How it works



copace.com



How Colorado C-PACE works for you
[Click Here](#)

[Read how C-PACE can help create energy-efficient restored historic buildings!](#)

STAY IN THE KNOW.
Sign up for periodic updates from Colorado C-PACE.

- PARTICIPATING COUNTIES
- ALREADY KNOW WHAT YOU WANT TO DO? FIND A CONTRACTOR.
- LOOKING TO OVERHAUL YOUR BUILDING? FIND A C-PACE PROJECT DEVELOPER.

Renewable Energy Support

 **SOLAR UNITED
NEIGHBORS**

energysage 



www.energysage.com

<https://www.solarunitedneighbors.org/>

How It Works Research Solar ▾ Solar Calculator Community Solar Energy Upgrades ▾ [Get Competing Solar Quotes Online](#) >

Rooftop Solar

Install solar on your property





Purchase or finance a solar panel system and save thousands over the 25+ year life of the equipment. Add batteries for backup power.

- ✔ Maximize financial savings from solar
- ✔ Reduce or eliminate electricity bills
- ✔ Enjoy tax credits and other incentives

Get free custom quotes from pre-screened installers

Community Solar

Subscribe to a local Community Solar Farm



Purchase energy from a local solar project at a discount. You don't need to own property or install equipment to save with community solar.

- ✔ Save 5-15% on your annual electricity bills
- ✔ Sign up for free, cancel at no cost
- ✔ Support local renewable energy jobs & development

Explore local community solar options

Renewable Energy – Community Gardens



[co.my.xcelenergy.com/s/renewable/
solar-rewards-community](https://co.my.xcelenergy.com/s/renewable/solar-rewards-community)

The screenshot shows the Xcel Energy website's "Solar Rewards Community" page. At the top, there are navigation links for "Pay Bill", "Start/Stop Service", "Outages", "Customer Service", and "Sign In". Below these are dropdown menus for "Residential Customers", "Business Customers", "Partner Resources", and "Clean Energy & EVs". The main heading is "Solar Rewards Community" with the subtext "Show your support for a solar garden." Below this, there is a breadcrumb trail: "Renewable Energy > Solar Rewards Community". The main content area includes a paragraph explaining the program: "Participate in renewable offerings and support the development of nearby solar gardens without the hassle of installing solar panels on your home or business. Solar Rewards Community is the nation's largest community solar program and gives you the opportunity to subscribe to a nearby, third-party community solar garden." It also states: "Once subscribed, customers will begin receiving credits on their monthly utilities bill for the solar energy that their subscription contributes to the Xcel Energy grid. Curious about how this fits into your sustainability goals? Learn about our Carbon Reduction Plan." Below this is a section titled "Eligibility" with two bullet points: "Must be an Xcel Energy residential or business electricity customer" and "Must live in the same county as the solar garden or an adjacent county". The next section is "Getting Started" with a sub-heading "Step 1 – Finding a Solar Garden Operator". It explains: "To participate, you'll need to work directly with a solar garden operator. The solar garden you subscribe to will manage your participation and gather the paperwork required for you to participate." It also notes: "We recommend researching multiple gardens in your area." At the bottom, there is a link: "Click here for a list of known solar garden operators with both active and/or projects in development (XLSX)".



Next Steps

Immediate Next Steps for Building Owners

- [Claim Your Building](#)
- Did you get your compliance letter(s) with your unique Building ID(s)? Use the [Building Lookup Tool](#) if you didn't.
- Check out the [Energize Denver Hub](#) for resources and webinars
- Sign up for a free energy audit
- Check out available support programs, financing, rebates
- Start to make a plan

Questions?

Help Desk:

<http://denvergov.org/energizeddenver>

energizesmallbuildings@denvergov.org

or 844-536-4528