



Estes Park | Fort Collins | Longmont | Loveland

Building Performance Colorado Overview with the Colorado Energy Office

May 2024



Alaina Hawley

Platte River Power Authority

Supervisor, distributed energy solutions

Safety minute and housekeeping items

Food and beverages

- Help yourself throughout
- Garbage cans in the back

Restrooms

- Outside the rear doors

Guest check-in and public area

- All guests should have checked in at the security desk and received a visitor badge
- Visitors must stay in the public area unless escorted by a Platte River employee

Emergency protocols

- Emergency exits
- Meeting location/find a Platte River employee

Efficiency Works Business 101



Platte River Power Authority

About

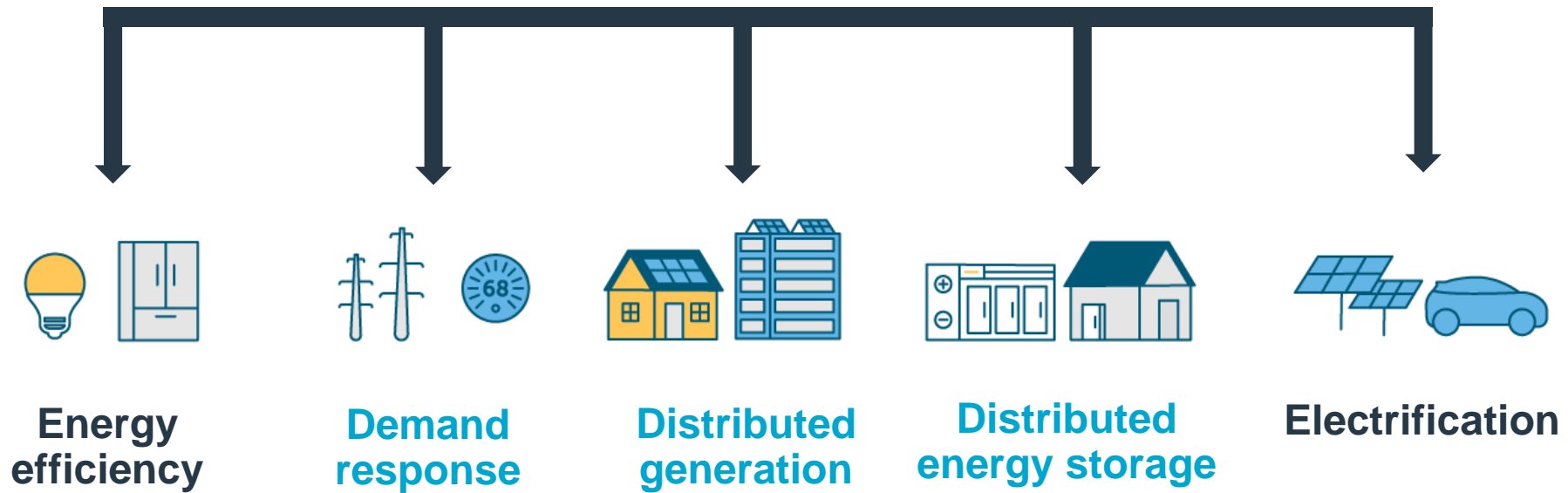
- Platte River began operations in 1973
- Owner communities: Estes Park, Fort Collins, Longmont and Loveland
- Governed by an eight-member board of directors comprised of each mayor and a person appointed by each owner community's governing body
- Approximately 300 employees
- Visit prpa.org for more information
- Collaborated with owner communities to launch Efficiency Works in 2014



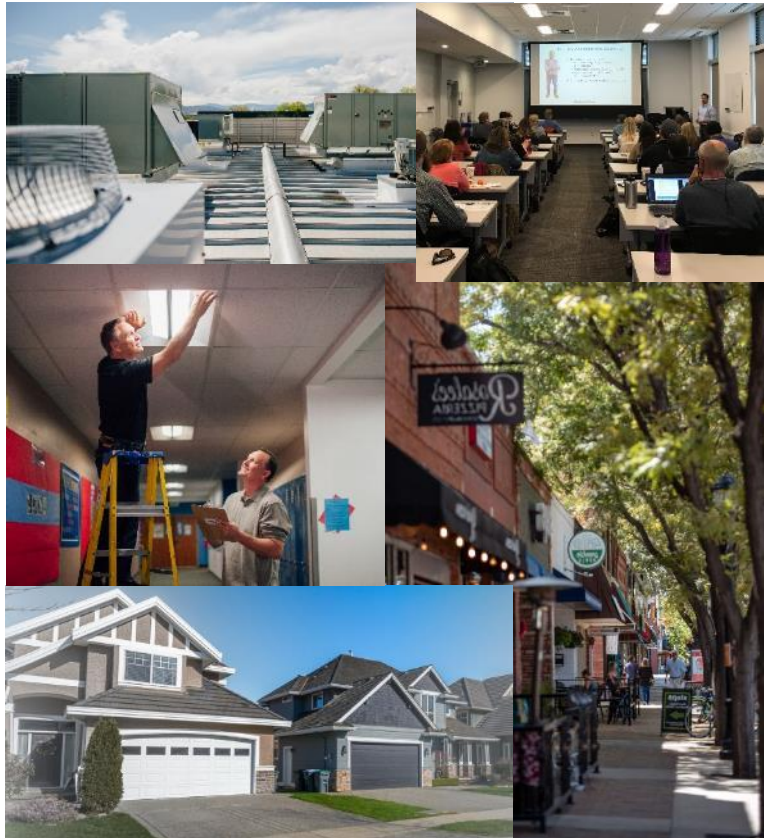
Platte River
Power Authority

Platte River Power Authority

Distributed energy resources



Efficiency Works overview



What is Efficiency Works?

- Efficiency Works unites the energy and water efficiency offerings of the northern Colorado utilities of Estes Park Power and Communications, Fort Collins Utilities, Longmont Power & Communications, Loveland Water and Power and Platte River Power Authority.
- The most sustainable way to use energy is to use as little as necessary to meet your needs. Efficiency Works offers home and business energy advising to help you save energy, water and money.



Efficiency Works™

10 YEARS



Efficiency programs for all needs



Resources

Work with staff to access professional resources to support projects or get facility assessments completed.



Service providers

Be listed on the Efficiency Works “Find a service provider” page used by customers looking for efficiency upgrade professionals.



Incentives

Offset the cost of efficiency upgrades through rebates and direct install opportunities.



Building tune-ups

Optimize existing facilities' HVAC systems through enhanced maintenance and retrocommissioning efforts.

Colorado's Benchmarking & Building Performance Standards Requirements

Colorado Energy Office
May 2024

Disclaimer

This presentation is being provided by the Colorado Energy Office (CEO), and it is the Office's sole discretion to change anything stated in this presentation.

The content of this presentation is also subject to change as a result of process requirements and public feedback.

Policy Overview

Why are we doing this?



- [Colorado's GHG Pollution Reduction Roadmap](#) identified sector-based, near-term actions the State could take to meet economy wide targets.
- The “Energy Performance for Buildings” statute (or [House Bill 21-1286](#)) established **building benchmarking and GHG emission targets** for “covered buildings”.
 - Established building sector-wide emission reduction targets of 7% by 2026 and 20% by 2030, from a 2021 energy use baseline.

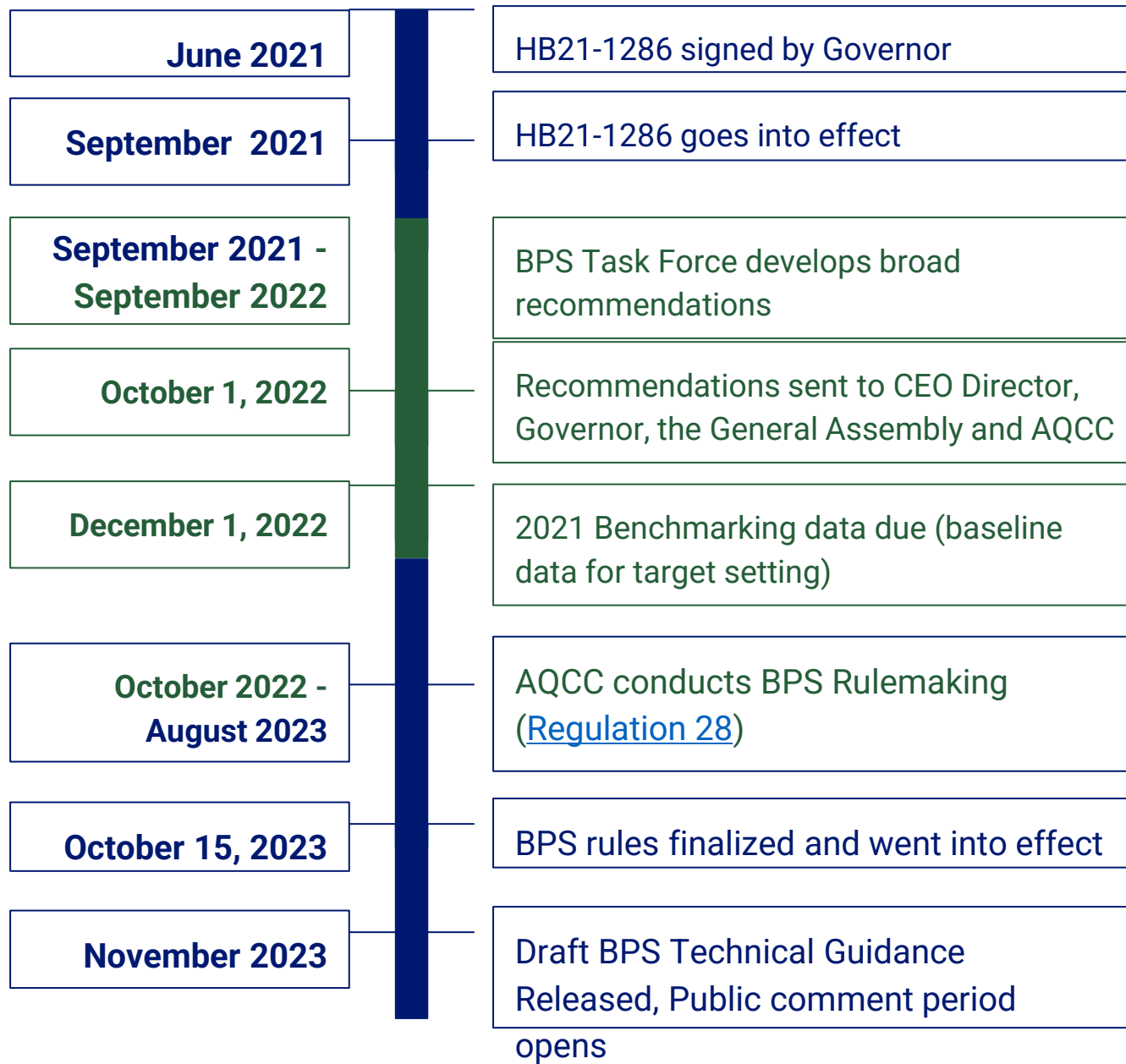


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How did we get here?



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What are the benefits to this program?

The goal of this law is to help building owners increase energy efficiency, lower energy costs, and decrease greenhouse gas emissions in the building sector.

- Buildings are the fourth largest source of greenhouse gas emissions in Colorado.
- Building performance standards can reduce energy bills for tenants and long-term costs for building owners, while also reducing harmful greenhouse gas emissions.

There are many benefits to this program

- Benchmarking informs building owners about how they use energy and what drives their energy use, and is a key step in identifying opportunities to increase profitability by lowering energy and operating costs. ([EPA](#))
- Buildings that consistently benchmark their energy use save ~2.4% in energy and energy costs per year. ([ENERGY STAR](#))
- The value and marketability of buildings increase as they become more energy efficient. ([IEA](#))

There many other benefits, including improved tenant health, resilience, safety, and an increased in local clean energy and building-related jobs.

Local Building Performance Ordinances

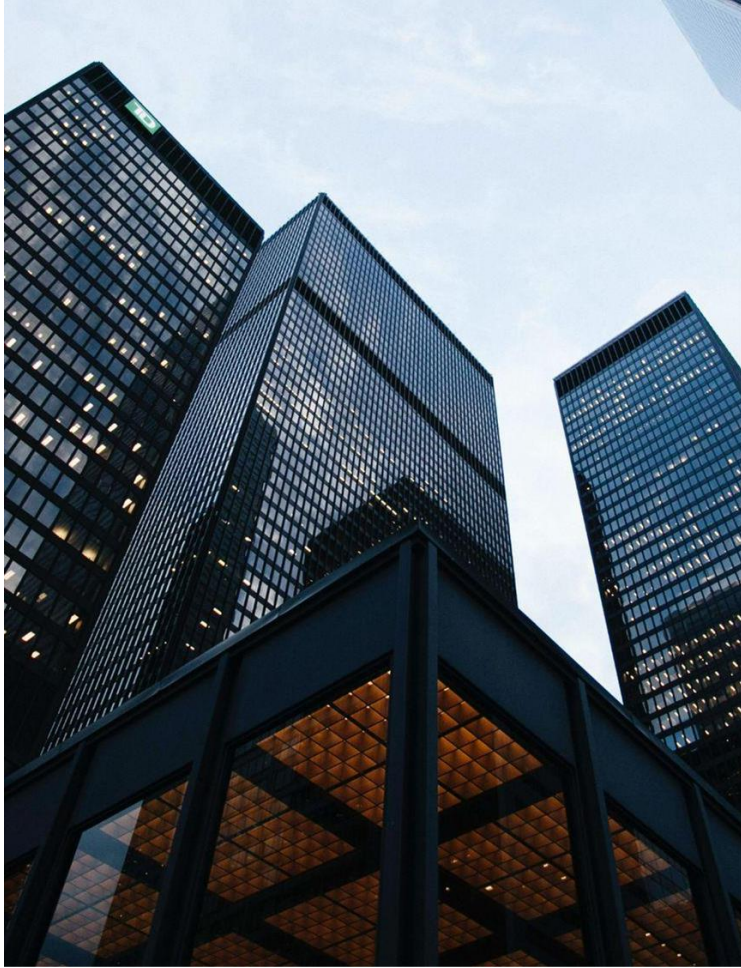
The State's BPS program and requirements do not supersede or replace local performance standard requirements. Building owners will need to comply with both State and local BPS requirements.

CEO and the local jurisdictions are actively working together to find ways to streamline these requirements.



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What types of buildings does this policy apply to?



Building size: These requirements apply to all individual buildings with gross floor area of 50,000 square feet or larger.

Gross floor area: a building's total area, as measured from the outside surface of each exterior wall of the building, including above-grade and below-grade space.

If a building is 50,000 square feet or more and shares a meter with other buildings, then the building owner may report benchmarking data at the campus level.



[Photo Source](#)
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Federal Reporting for Benchmarking

Federal Buildings

The State has determined that federal buildings are subject to and must comply with the State's [benchmarking requirements](#).

However, the State recognizes the [Federal Building Performance Standard](#) establishes 2030 and 2045 emission reduction goals for federal buildings.

- Federal buildings that would be covered by the State's performance standard requirements but are a part of the Federal Building Performance Standard, not need to comply additionally with the State's standard.
- However, the AQCC reserves the right to regulate federal buildings in the event that the Federal Building Performance Standard is modified or eliminated.

This refers only to federally owned buildings, not buildings where the tenants are federal, but the building is privately owned. Privately owned buildings with federal tenants are subject to both the benchmarking and performance standard requirements.

Program Exemptions: What buildings does this policy apply to?

The following buildings are NOT covered by this program:

- An individual building with a gross floor area < 50,000 square feet;
- A building that is a single-family home, duplex, or triplex;
- A building that is a storage facility, stand-alone parking garage, or airplane hangar that lacks heating and cooling (the heating and cooling applies to all property types listed);
- The building has more than half of the gross floor area dedicated to manufacturing, agricultural, or industrial or purposes (referred to as MAI buildings).
 - *Agricultural products and manufacturing purposes do not include marijuana cultivation facilities.*
 - *Manufacturing, agricultural, and industrial purposes defined in Technical Guidance Document.*

If anything changes that makes the building no longer eligible for one of these exemptions, the building owner must notify CEO so that the building owner can appropriately comply with the program requirements.

If approved for an exemption, a building owner does not need to re-apply until 2027.

Benchmarking Requirements

Benchmarking Requirements Overview

Building owners are required to submit their previous calendar year whole-building energy data annually by June 1st through [ENERGY STAR® Portfolio Manager®](#)

Building owners must pay an annual fee of \$100 (per building) by June 1 of every reporting year

Building owners did not comply with the previous benchmarking reporting deadlines, or failed to submit accurate data, will be able to re-submit those reports, as well as correct any of the following information associated with their building in the 2024 Reporting season. This will include:

- Updated benchmarking reports for the 2022 or 2023 season (containing **2021** and 2022 calendar year data, respectively);
- Updated waiver and exemption applications (if previously denied due to incorrect documents);
- Updated square footage of their building (with floor plans); and
- Updated contact information for their building.

Re-submitting past reports will NOT change the 2021 baseline

Benchmarking Deadlines



Due to building owners learning these new requirements, CEO will be providing a program wide extension for the 2024 Reporting Season.

2024 Benchmarking Season will open: March 15, 2024
Report & Fee will be due July 1, 2024



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Benchmarking Penalties

Beginning January 1, 2024, benchmarking penalties will be in effect.

If a building owner fails to submit a benchmarking report, waiver request, or the corresponding fee, the building owner will be considered non-compliant and **subject to civil penalties of \$500 for the first violation and \$2,000 for each subsequent violation.**

- **First violation** = When a building owner fails to submit an accurate benchmarking report, a waiver or exemption request, or the corresponding \$100 fee (per building) by the annual June 1 reporting deadline.
- **Subsequent violation** = occurs when the building owner continues to fail to comply with the annual benchmarking requirements.

Building Performance Requirements



CO BPS Compliance Pathways

Energy Efficiency Pathway

Metric: Weather-normalized Site EUI
Target

OR

Greenhouse Gas Reduction Pathway

Metric: Greenhouse Gas Intensity
(GHGI) Target

OR

Standard Percent Reduction Pathway

Metric: Site EUI or GHGI Target
2026 - 2029: 13%
2030 - 2050: 29%

Building owners can choose from three separate pathways to comply with a performance target

This provides building owners the flexibility to choose what compliance path and corresponding actions are right for their building

There are no restrictions or criteria for buildings to meet before selecting a pathway

The 2026 and 2030 Property Type Site EUI and GHGI Targets can be found in [Appendix A](#) in the Technical Guidance



Pathway Selection

In addition to their 2024 benchmarking report, building owners must specify which compliance pathway they will follow to achieve the 2026 targets. CEO will release a pathway selection form in the 2024 Benchmarking Reporting Season.

- If a building owner does not select a pathway, they will default to the Energy Efficiency Pathway.
- Mixed-use buildings and buildings with installed electric vehicle (EV) charging stations that are not sub-metered will default to the standard percent reduction pathway. *These buildings may elect to take another pathway and request an individualized target.*

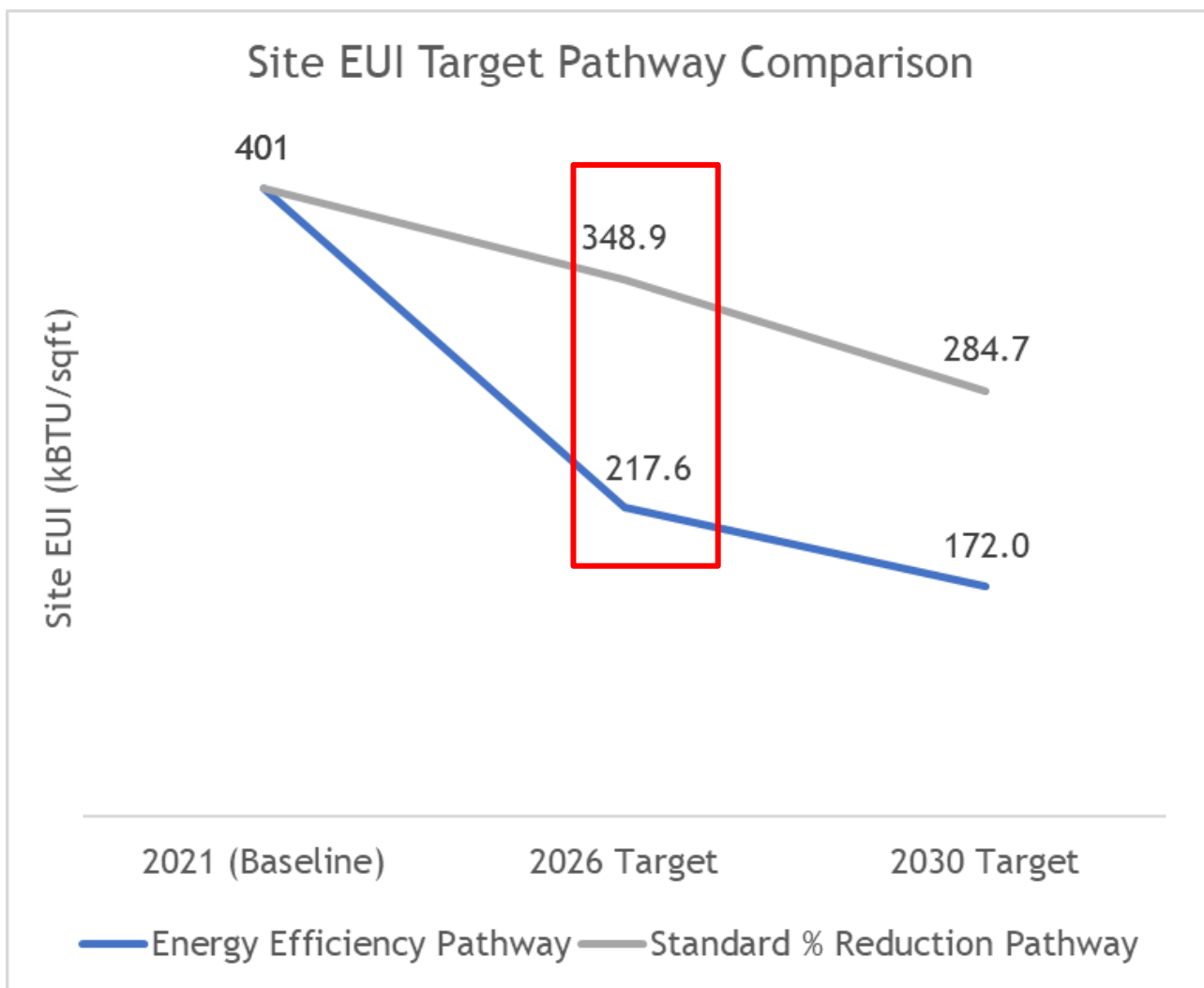
Building owners may switch compliance pathways but will need request a Pathway Adjustment Form. The covered building owner must provide the materials requested by CEO and demonstrate that the building owner has achieved compliance through the other compliance pathway.

- This request must be submitted to CEO by **December 31, 2026** (for the 2026 target) and **December 31, 2030** (for the 2030 target).



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Pathway Comparison



It is important for building owners to assess their building's baseline and their anticipated compliance actions, which will help them select a compliance pathway

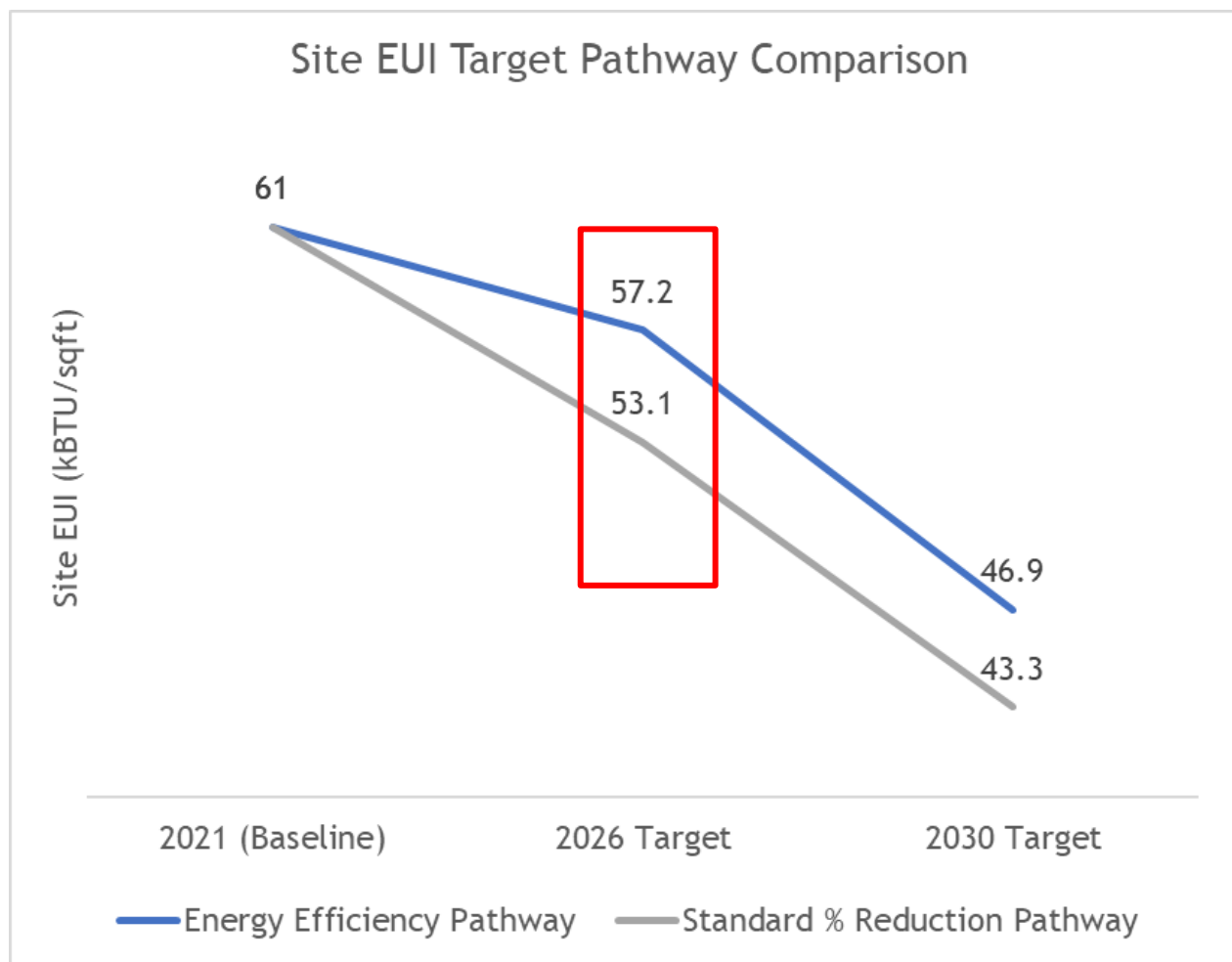
In this example, the baseline EUI is high

- The Standard Percent Reduction Pathway provides target flexibility

Standard Percent Reduction Pathway adjusts both the 2026 and 2030 target for buildings that are farther from EUI Targets



Pathway Comparison



It is important for building owners to assess their building's baseline and their anticipated compliance actions, which will help them select a compliance pathway

In this example, the baseline EUI is close to the 2026 EUI target

- The Energy Efficiency Pathway is the best pathway for this building, whereas the Standard Percent Reduction Pathway is requiring greater reductions



CO BPS Compliance Adjustments

Compliance Adjustment Options

A building owner may seek a compliance adjustment based on unique property and/or use types as well as circumstances that may prohibit upgrades such as delayed delivery of equipment.

Standardized Target Adjustment

Timeline Adjustment

CEO will release more detailed guidance on adjustment process in July 2024, and will start accepting applications after July 1, 2024.



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Notes on Compliance Adjustments

Standardized Target Adjustments

Standard Target Adjustments are only available for buildings that are following either the Energy Efficiency or Greenhouse Gas Reduction pathways with a property type target. **Buildings that have elected the Standard Percent Reduction Pathway are not eligible for Standard Target Adjustments.** More details can be found in the Technical Guidance Document on our Program Website.

Timeline Adjustments

Buildings are eligible to request a compliance timeline adjustment, irrespective of the compliance pathway that was chosen provided they meet one item on a list of criteria. More details can be found in the Technical Guidance Document on our Program Website.

Renewable Energy Requirements (1 of 2)

Prerequisites

- Renewable energy can only be used by building owners when **selecting a GHGI target**, whether complying with the GHG Reduction or the Standard Percent Reduction pathway.
- Renewable energy can only count towards compliance if the renewable energy credits (hereinafter referred to as RECs) associated with that renewable energy are retained or retired.

Requirements

- The renewable energy resource and RECs must be located in Colorado; and
- The covered building owner owns and retires the RECs the same year the electricity was generated; and
- The amount of RECs used for compliance cannot exceed the amount of energy the building annually consumes and cannot exceed the amount generated by the retail distributed generation system

Legacy systems

- Legacy systems = any retail distributed generation that was purchased, or the utility interconnection request was filed with the utility, before December 31, 2023.
- If a building owner owns a legacy system according to this definition, then they are able to purchase unbundled RECs and associate this distributed generation for compliance.
- When purchasing these unbundled RECs, they need to be retired from a renewable energy resource located within Colorado and must be equal to the generation of their existing renewable energy system.

Renewable Energy Requirements (2 of 2)

A building owner will have to perform the following steps:

- Perform all possible cost-effective energy efficiency measures at the building.
- Conduct an ASHRAE Level II Energy Audit that demonstrates all cost-effective energy efficiency measures have been implemented at the building, as well as demonstrates how renewable energy will help the building owner reach compliance with a GHGI target.
- Identify the renewable energy systems the building owner would like to enlist for their compliance. Building owners will need to ensure the previous conditions are met.
- Submit the energy audit report to CEO demonstrating that the first two steps have been completed, supporting documentation showing the types of renewable energy systems to be used for compliance, and that renewable energy is necessary to meet your GHGI target.
 - CEO will release more guidance on this reporting process in Summer 2024.
- After receiving approval from CEO, the building owner will need to report their annual RECs to CEO on June 1, alongside their benchmarking report.
 - CEO will release a form for this reporting in the future.

Types of Renewable Systems Allowed

The following renewable energy contracts may be allowed if they match the previous requirements stated:

- Retail distributed generation systems, including on-site rooftop solar and off-site renewable energy systems using virtual net (energy) metering
- Power Purchase Agreements (also known as Physical PPAs)
- Community Solar Garden subscription, as long as they meet the following criteria:
 - The solar electric generation facility must have a nameplate rating of no more than 10 megawatts, and there must be at least ten subscribers; and
 - The covered building owner has a subscription term of at least five years, and the covered building owner must maintain the subscription to maintain compliance; and
 - The community solar garden is located in or near a community served by a utility where the electricity generated by the community solar garden belongs to the subscribers of the community solar garden; and
 - The subscribers retain RECs associated with generation or the community solar garden owner retires the REC on behalf of the customer.
- Alternative Types of Renewable Energy (such as Wastewater thermal energy recovery systems, Geothermal energy, Demand response or demand flexibility program, or another form of renewable energy with approval from CEO)

The types of renewable energy programs that are eligible for compliance vary considerably between utilities, so building owners should check with their local utility to find out if the building owner currently retains or is able to retain RECs (as an example, please see [Xcel Energy's renewable energy programs](#)).

CEO will release more guidance on this renewable reporting process and corresponding forms in Summer 2024.



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BPS Deadlines

Building Performance Standards Deadlines



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BPS Penalties

If a building owner fails to demonstrate compliance with their assigned BPS target, they will be considered non-compliant and **subject to civil penalties of up to \$2,000 for the first violation and up to \$5,000 for each subsequent violation.**

First violation = When a building owner's 2026 or 2030 performance submission does not reflect achievement of their BPS target (for example, June 1, 2027 BPS submission does not meet the assigned 2026 target).

In the case of a first violation, building owners will be required to demonstrate progress towards their assigned BPS target via monthly progress submissions. These monthly progress submissions are required until CEO determines the building has come into compliance by meeting its performance target. Building owners must submit documentation by the end of each month, including:

- A retrofit plan outlining proposed improvements,
- The timeframe in which improvements will be made,
- How the improvements will result in the building reaching the performance target,
- Any work completed in the building to date, and
- At least two contractor project cost estimates.

BPS Penalties

Subsequent violation = When a building owner continues to be out of compliance with the BPS target *each month* after the June 1 deadline. This can include:

- Each month the building owner fails to demonstrate compliance with the BPS target; OR
- Each month the building owner fails to submit the monthly progress submissions demonstrating progress towards meeting the target.

In the event a building owner fails to comply with the requirements of the BPS, the Colorado Department of Public Health and Environment's (CDPHE) Air Pollution Control Division (APCD) may request the district attorney for the district in which the alleged violation occurs or the attorney general to bring a suit for an injunction to prevent any further or continued violation.

The Colorado Department of Public Health and Environment's (CDPHE) Air Pollution Control Division (APCD) is responsible for the enforcement process in this program.

Resources

Timeline

- **March-June 2024:** Offering training for the benchmarking process; offer new trainings on emission tracking and around specific BPS requirements; host weekly office hours for help desk questions
- **After July 2024:** Release guidance on Target & Timeline Adjustment process; Guidance released for Under Resourced Buildings

We have the following resources on our technical guidance:

- Industry Guides around energy audits, retrofits, building upgrades and energy design, from sources like from Dept of Energy, ASHRAE, ENERGY STAR and RMI
- Retrofit Tools and resources
- List of financing resources and links to contractor lists

Building Performance Colorado: Draft Technical Resource Guide

*Colorado's Benchmarking and Building Performance
Standards Requirements*

November 2023



Resources for Building Owner Compliance

Many resources are available to support investments by building owners.

- Utility rebates
 - *(Please go your provider's website for their rebates)*
- [Commercial Property Assessed Clean Energy \(CPACE\) Financing](#)
- [Colorado Clean Energy Fund Loan Programs](#)
- [Energy Performance Contracting](#)
- [Inflation Reduction Act Tax Credits & Incentives](#)



Have ideas for resources? Place them in the chat!



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Energy Performance Contracting



Next Steps

- Check your previous years benchmarking reports to ensure you benchmarked accurately (including property types and square footage)
- Benchmark for the 2024 season (2023 energy data) if you have not already done so
- Review pathways and property type targets to determine which pathway makes the most sense for your building, and make a [Preliminary Pathway Selection](#) by July 1, 2024

Thank you!

Building Performance Colorado Helpdesk
Building.Performance@state.co.us

Program Website
<https://co.beam-portal.org/helpdesk/kb/>

Technical Guidance
[Building Performance Colorado: Technical Resource Guide](#)



Efficiency Works Business

Support services

2024 efficiency rebates

Efficiency Works offers rebates for virtually anything that saves electricity and water

Rebates help get the job done

Energy advising and assessments

Efficiency Works staff are excited to share efficiency knowledge, help identify efficiency opportunities, and assist with rebate applications

Free energy efficiency help

- Small and medium business
- Large commercial and industrial
- Energy management

Electric vehicles (EVs)

EV information webpage:

- Visit efficiencyworks.org/electric-vehicle-information

EV buyers guide website:

- Information to support decision making
- Compare EV and non-EV models
- Visit ev.efficiencyworks.org

EV Fleet Planner:

- Information to support decision making
- Explore available EV models
- Compare EV and non-EV fleet costs
- Visit evfleet.efficiencyworks.org

Public Level 2 EV charging infrastructure incentives:

- Up to \$5,000 per port
- Preapproval required

Shop exclusive deals on energy efficiency products at our [Efficiency Works Store](#)

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Electric vehicle information

With increasing interest around electric vehicles, Efficiency Works aims to provide information for residents and businesses to make informed decisions about electric vehicles purchases.

See below for more information on general EVs, commercial EV solutions and incentives and other programs by the local, state and federal government.

Efficiency Works created a guide to help individuals identify EVs based on criteria such as budget, mileage and charging options. Visit ev.efficiencyworks.org to visit the EV resource page.



Electric vehicle information

- [Incentives](#)
- [Vehicles](#)
- [Learn more about electric vehicles](#)

Commercial EV solutions

- [Public charging infrastructure incentives](#)
- [Charge Ahead Colorado](#)
- [Colorado Energy Office Fleet Zero](#)

Other resources

- [State of Colorado Zero Emission Vehicle Tax Credits](#)
- [Federal EV driver information](#)

Other resources to support projects

Additional financial resources

Boulder County Partner's for a Clean Environment (PACE)

Colorado Energy Office programming

- Charge Ahead Colorado EV charging funding
- Clean Air Program (CAP) Grants

Colorado Commercial Property Assessed Clean Energy Program (C-PACE)

- Commercial, industrial, multifamily, and agricultural property owners to finance up to 100% of the cost of eligible energy efficiency, renewable energy and water conservation improvements
- Private capital providers offer financing at competitive rates with repayment terms up to 25 years

Internal Revenue Code (IRC) Section 179D

- Energy efficient commercial building property (EECBP) or energy efficient commercial retrofit property (EERBP) may be able to claim a tax deduction
- Eligible property must be installed as part of interior lighting, HVAC and hot water systems, or building envelope
- Deduction starts at \$0.54 per ft² provided an energy savings of 25% has been achieved, additional deductions based on each additional percentage point above 25% and bonuses for meeting prevailing wage and apprentice standards

Thank you!

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