



# **BPS IN COLORADO**

Energize Denver & Building Performance Colorado

April 29, 2026



# MARIKA ERDELY

## PRINCIPAL, VCA GREEN

MBA, C.E.A., LEED AP® BD+C, Fitwel Ambassador  
Los Angeles, CA

- 15+ years in the Energy Consulting industry
- Previously CFO/VP at New Millennium Homes and Founder/CEO of Green Econome
- Holds an MBA from Pepperdine University and a BA in Business Economics from UCSB
- California Contractors License B & C-10
- Currently serves on USGBC-CA Regional Leadership Advisory Board (RLAB)



# JESSICA ANDERSON

**SR. SUSTAINABILITY MANAGER, VCA GREEN**

LEED Green AP BD+C | PMP

Denver, CO

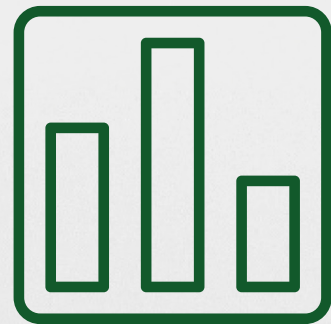
- MBA in Resilient Business Management and MA in International Environmental Policy from Middlebury Institute of International Studies at Monterey
- BS in Environmental Science, University of Connecticut
- LEED Accredited Professional (AP) in BD+C and PMP from Project Management Institute
- Guides complex sustainability goals into actionable, measurable outcomes in alignment with compliance certification and business goals.





- This webinar is being recorded
- Recording and presentation slides will be distributed
- Questions can be submitted via chat throughout the call

## Agenda



- Why Building Performance Matters
- Policy Overview
- Show Me the \$\$\$
- Live Q&A



# Why Building Performance Matters



## ENERGY STRATEGY

Energy is no longer just an operating cost. It is becoming a strategic factor in asset performance.



**2x**

Colorado electricity prices have risen since 2001

**50+**

Cities now have energy disclosure & Building Performance Standards (BPS)

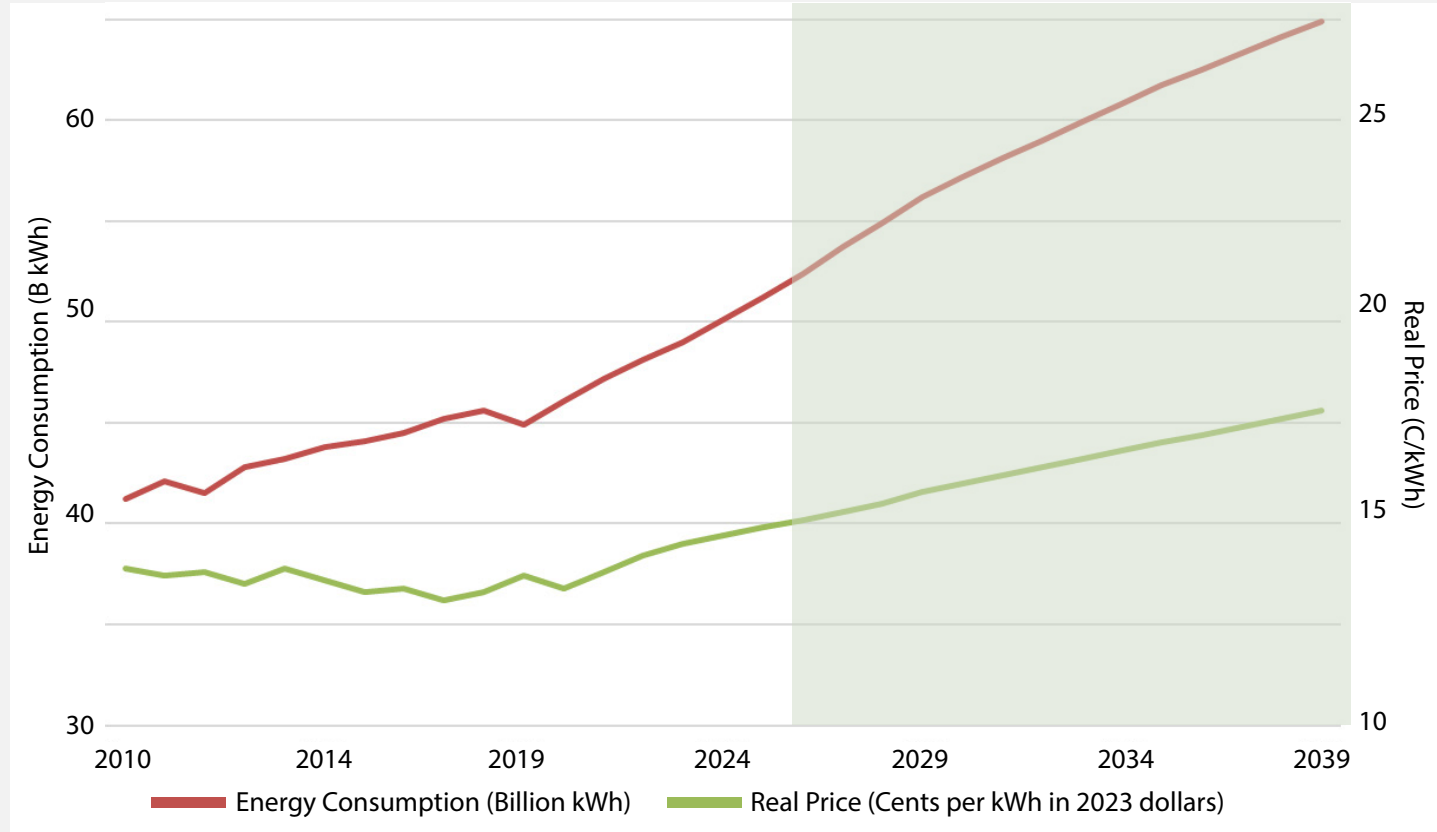


Investors, lenders, and tenants increasingly track energy performance

## DEMAND GROWTH

Energy Demand and Cost is Permanently Changing.

## HISTORIC TO PROJECTED ENERGY USE AND COST IN COLORADO



Electricity is likely to become a more significant operating cost for commercial buildings.

# Energy is Impacting Commercial Real Estate

1



## Rising Electricity Demand

- EV charging infrastructure
- Electrification
  - Heat pump adoption
  - Electric water heating
- AI data centers
- Climate factors

2



## Increasing Cost

- Infrastructure demand
- Modernization
- Climate factors
- Market volatility
- Socio-political instability

3



## Transparency & Awareness

- Local benchmarking ordinances & Building Performance Standards (BPS)
- Public energy disclosure
  - ESG
  - Corporate climate disclosure
    - CA SB 253
- Underwriting
- Risk assessment
- Valuation Impact

## POLICY OVERVIEW

**Energy Benchmarking and Building Performance Standards (BPS)** are a strategy of a city or state's climate action plan, with the goal of reducing energy use and reaching net zero emissions.

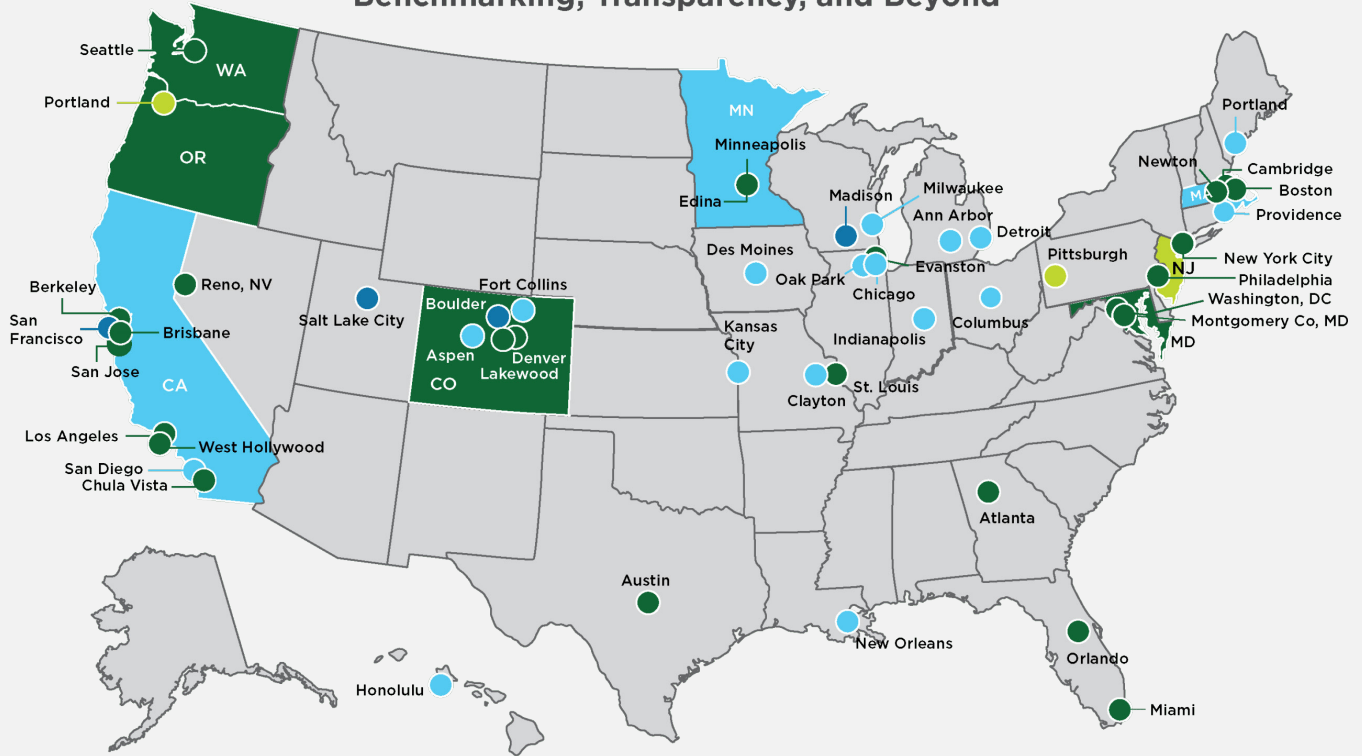
### PHASE I

Large existing buildings (usually 20,000 - 50,000+ sq. ft.) **must complete ENERGY STAR® benchmarking annually.**

### PHASE II

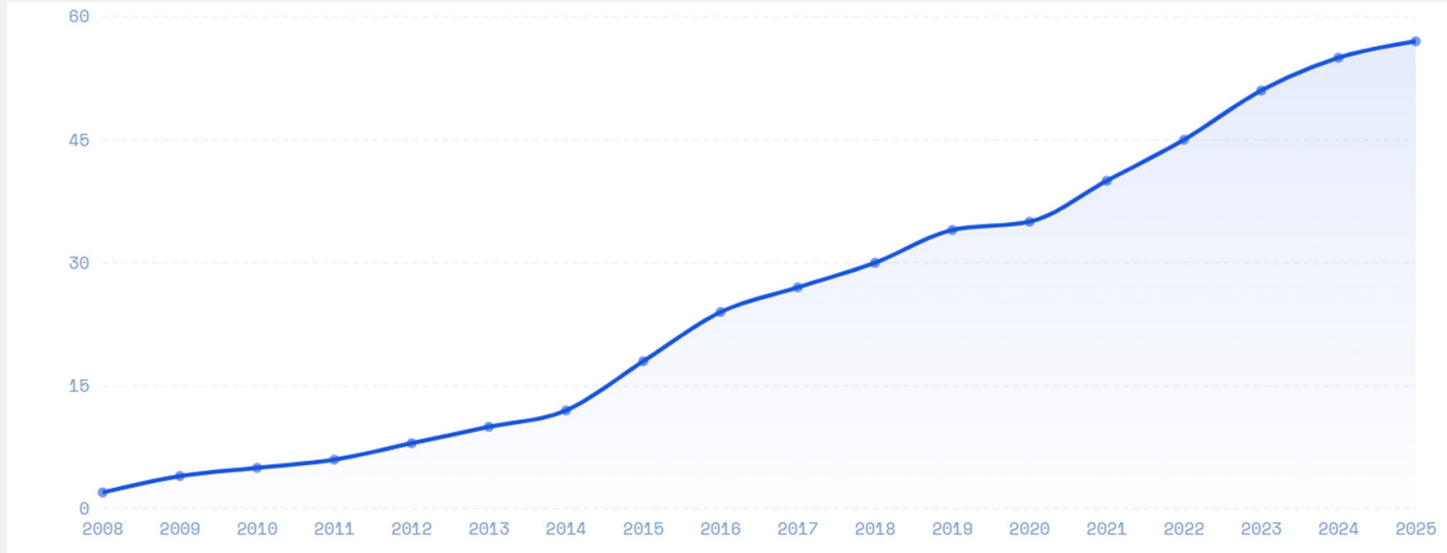
**Building Performance Standards (BPS)** require buildings to reduce use/GHGi and maintain or improve over time.

## U.S. City, County, and State Policies for Existing Buildings: Benchmarking, Transparency, and Beyond



- Yellow circle: Benchmarking required for public and commercial buildings
- Light blue circle: Benchmarking required for public, commercial, and multifamily buildings
- Medium blue circle: Benchmarking and additional actions required for public and commercial buildings
- Dark green circle: Benchmarking and additional actions required for public, commercial, and multifamily buildings

# Growth of Benchmarking & Building Performance Standards (BPS)



## 2008–2011

### Pioneers

Washington DC, NYC,  
and Seattle led the way  
**+6 jurisdictions**

## 2012–2015

### Early Adopters

East Coast cities + CA  
build a movement  
**+14 jurisdictions**

## 2016–2019

### Expansion

Midwest & Sun Belt cities;  
first state laws  
**+16 jurisdictions**

## 2020–2025

### Acceleration

State mandates & BPS  
surge; **20+ new  
jurisdictions**

# The Vital Signs of Your Building

## Benchmarking is the basis for most energy disclosure policy

- Data is King
- Verifying accuracy is Key: garbage in, garbage out.
- Real insight into:
  - Building performance comparison – where do you stand?
  - Consumption trends by source – what are your outliers?
  - Are you heading in the right direction?

# 73

ENERGY STAR®  
1 Score

**Primary Property Type:** Multifamily Housing  
**Gross Floor Area (ft²):** 38,312  
**Built:** 1963

**For Year Ending:** December 31, 2025  
**Date Generated:** April 25, 2026

**Property Address:**  
 123 Main St  
 Orange, California 123456

**Property ID:** 12345678

### Performance Comparison

	Progress			Performance Goals		
	Baseline (Ending Date 12/31/2019)	(Ending Date 12/31/2025)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
<b>ENERGY STAR Score</b>	68	73	7.4	87	50	75
<b>Energy</b>						
Site EUI (kBtu/ft²)	42.3	39.9	-5.5	35.9	46.9	39.6
Source EUI (kBtu/ft²)	66.7	64.9	-2.7	56.7	76.2	64.4
<b>Total (Location-Based) GHG Emissions</b>						
Total (Location-Based) GHG Emissions (Metric Tons CO2e)	89.62	87.94	-1.9	76.17	103.21	87.19
Total (Location-Based) GHG Emissions Intensity (kgCO2e/ft²)	2.34	2.3	-1.9	1.99	2.69	2.28
<b>Water</b>						
All Water Use (kgal)	2,188.1	1,495.4	-31.7	*	*	*

# Building Performance Colorado (BPC)



OVERVIEW

# BUILDING PERFORMANCE COLORADO

WHAT

Energy benchmarking and building performance standards.

WHO

Existing buildings 50,000 Sq. Ft. or larger.

## PHASE I

ENERGY STAR®  
Benchmarking

## PHASE II

Building Performance  
Standards (BPS)  
Ongoing maintenance &  
penalty enforcement

A photograph of a city skyline at sunset, with the sun low on the horizon behind several skyscrapers. The sky is a mix of orange, yellow, and blue. In the foreground, there are green trees and a park area.

# BPC

## Phase I

### Benchmarking



#### **BENCHMARKING REQUIREMENT**

Annually report energy use via ENERGY STAR® Portfolio Manager®.



#### **BENCHMARKING METRICS**

- ENERGY STAR Score
- Site EUI (Energy Use Intensity)
- GHGI (Greenhouse Gas Intensity)



#### **DEADLINE**

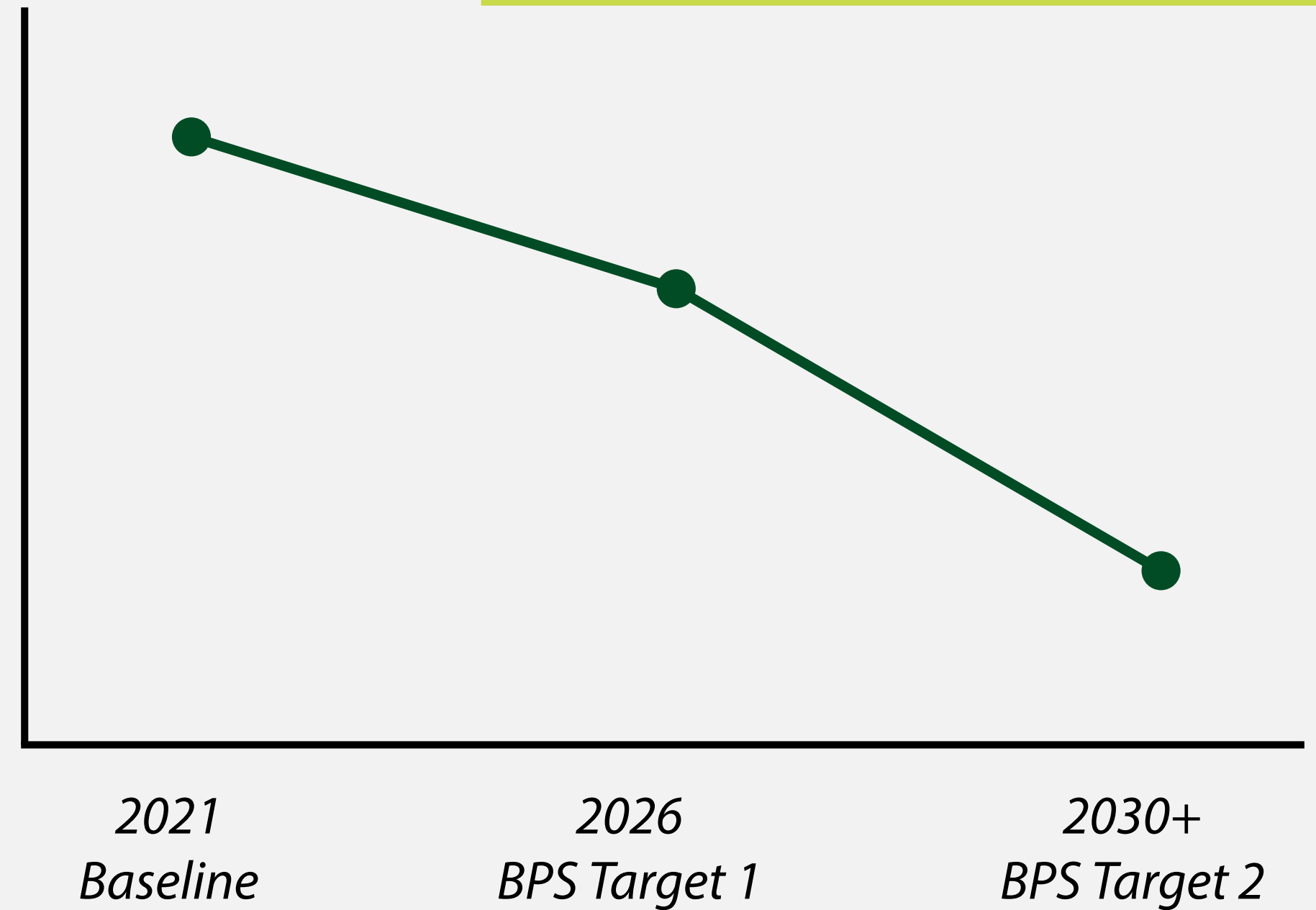
Required annually by November 1.

You can't improve what you don't **accurately** measure.

# BPC Phase II Building Performance Standards

State goal is to reduce emissions across all commercial buildings by 7% in 2026 and 20% in 2030 (relative to 2021 baseline\*).

*Building  
Emissions*



\*Note: Owners can request a 2019 baseline year (must be done by November 1, 2027)

A photograph of a city skyline at sunset, with the sun low on the horizon behind several skyscrapers. The sky is a mix of orange, yellow, and blue. In the foreground, there are green trees and a road.

# BPC Phase II BPS Compliance Pathways



## ENERGY EFFICIENCY PATHWAY

- Meet Site **energy use intensity (EUI)** or **greenhouse gas intensity (GHGI)** targets based on the building's use type.



## STANDARD PERCENT REDUCTION PATHWAY

- Achieve a Site EUI or GHGI emissions reduction of 13% in 2026 and 29% in 2030 from the 2021 baseline energy data.

Note: If an owner requests an energy efficiency pathway adjustment, **third-party data verification** must be submitted for every year of benchmarking data.

November 1, 2028: Deadline for building owners to easily change their 2030 compliance pathway without any additional documentation.

A photograph of a city skyline at sunset, with the sun low on the horizon behind several tall buildings. The sky is a mix of orange, yellow, and blue. In the foreground, there are green trees and a road with a railing.

# BPC Exemptions & Waivers



## EXEMPTIONS FROM BUILDING PERFORMANCE COLORADO

Owners may be exempt from benchmarking and/or BPS if their building meets certain qualifications. Some examples include if the building:

- Is used for manufacturing, agricultural, or industrial (MAI) purposes.
- Was unoccupied for at least 30 consecutive days during the previous year.
- Is under financial hardship.

The exemption and waiver application deadline is **May 1**.

# BPC Penalties



## **BENCHMARKING PENALTY**

Failure to report, submit a waiver, or pay the benchmarking fee will result in a **\$577 fine for first violation**, and **\$2,300 per subsequent violation**.



## **BPS PENALTY**

Failure to demonstrate BPS compliance will result in a **\$2,300 fine for first violation**, and up to **\$5,800 per subsequent violation**.

*Note: Penalties are assessed every 30 days until in compliance. Paying penalties does not constitute compliance. Buildings who are penalized must still meet their reporting requirements.*

# Energize Denver



## OVERVIEW

# ENERGIZE DENVER

### WHAT

Energy benchmarking and building performance standards.

### WHO

Existing buildings 25,000 Sq. Ft. or larger.


Existing buildings 5,000 to 24,999 Sq. Ft.

## PHASE I

ENERGY STAR®  
Benchmarking  
Third Party Data  
Verification

## PHASE II

Building Performance  
Standards (BPS)  
Ongoing maintenance &  
penalty enforcement



# ENERGIZE DENVER

Buildings 5,000  
to 24,999 Sq. Ft.



## LIGHTING REQUIREMENT

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.



## IMPROVE ENERGY SOURCE

Utilize on- or off-site renewable power generation to meet a minimum of 20% of the building's annual site energy usage.

Deadline	Building Size
December 31, 2025	15,001 - 24,999 Sq. Ft.
December 31, 2026	10,001 - 15,000 Sq. Ft.
December 31, 2027	5,000 - 10,000 Sq. Ft.



# ENERGIZE DENVER

25,000 Sq. Ft.

Phase I

Benchmarking &  
Data Verification



## **BENCHMARKING REQUIREMENT**

Annually report energy use via ENERGY STAR® Portfolio Manager®.



## **DEADLINE**

Required annually by June 1.



## **THIRD-PARTY DATA VERIFICATION**

Benchmarking reports must be verified twice:

1. In either 2025 **or** 2026 to confirm correct building info and use type.
2. In the building's final BPS target year to confirm the final performance standard has been met.

Data verification is also required when making BPS target adjustments.



# ENERGIZE DENVER

25,000 Sq. Ft.  
Phase II  
Building  
Performance  
Standards

## BPS TARGETS

- Final performance targets are determined based on building use type.
- Interim performance targets are determined based on a "straight line" trajectory.
- Buildings had the option to opt-in to the extended timeline in 2025 benchmarking report.\*

## ORIGINAL TIMELINE

- 2024 (interim)
- 2026 (interim)
- 2030 (final)

## \*TIMELINE EXTENSION

- 2028 (interim)
- 2032 (final)

**Note:** The maximum reduction requirement is 42% from the baseline year, even if the final performance standard requires a greater reduction.

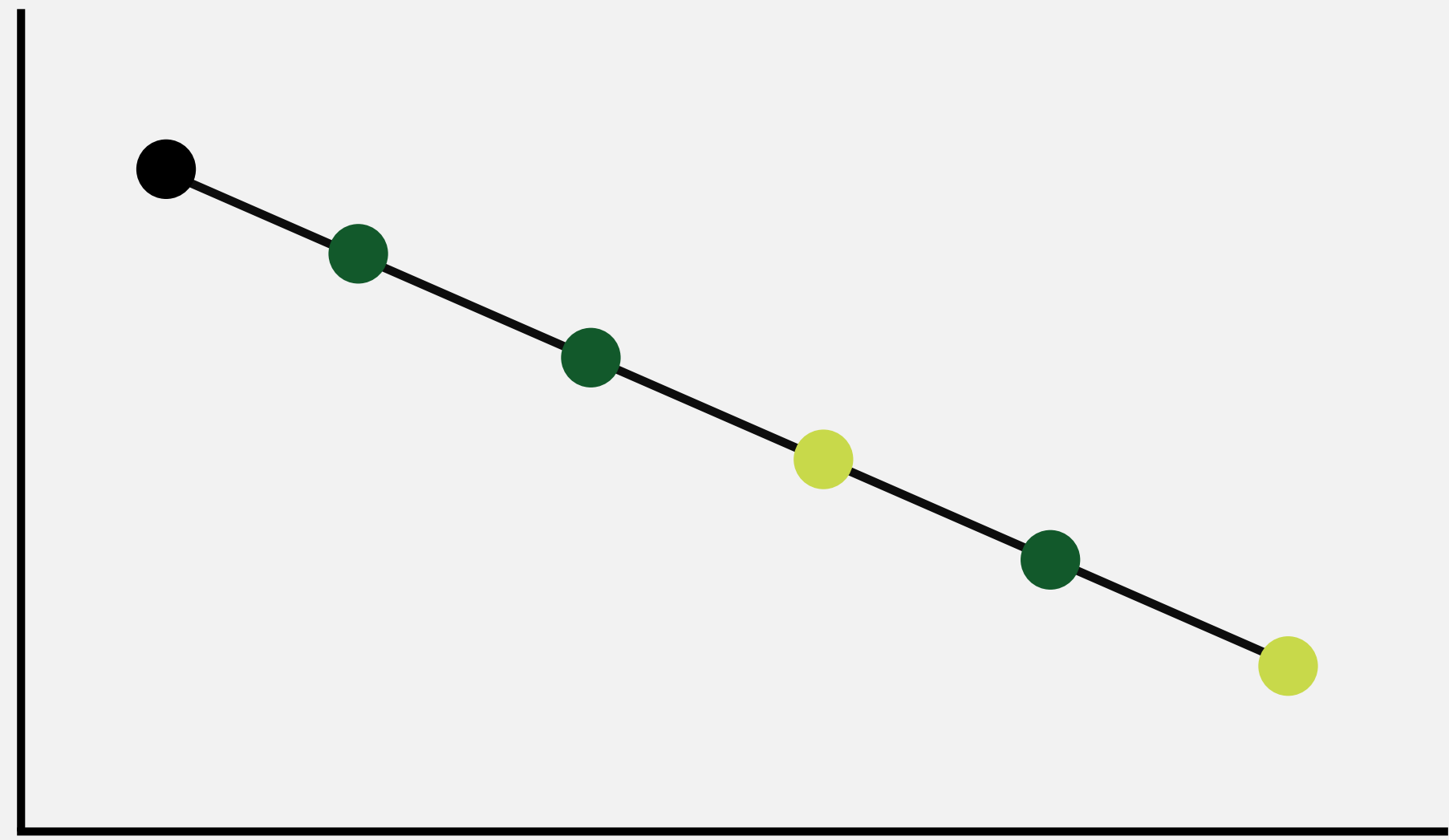
# ENERGIZE DENVER

25,000 Sq. Ft.  
BPS



Denver's goal is to reduce weather-normalized Site EUI across all commercial buildings by 30%.

*Building Emissions*



2019 2024 2026 2028 2030 2032+

ORIGINAL TIMELINE = ●

TIMELINE EXTENSION = ●

# DENVER SAMPLE BUILDING

Multifamily  
60,000 Sq. Ft.

Baseline Year  
2019

Baseline EUI  
56.1

2028 Target  
Site EUI - 50.7

2032 Target  
Site EUI - 44.2

# FORECASTING CALCULATOR



**ENERGIZE DENVER**  
Building Performance Forecasting Calculator

[Benchmarking](#) [Performance](#) [Resource Center](#) [Portal](#) [Map](#) [Look Up Tool](#) [?](#)

## Building Details

Building ID [?](#)

2255

Search

Building Address

1735 19th st

Search

Building Area [?](#)

59983

Baseline Year [?](#)

2019

Baseline EUI [?](#)

56.1

Will be 80% Electrified by Final Target?

## Base Metrics

Compare to Baseline or Most Recent?

Baseline [v](#)

Selected EUI for Calculations

56.1

How-To Guide

How-To Video



## Site Energy Use Intensity (EUI) Reduction Forecast

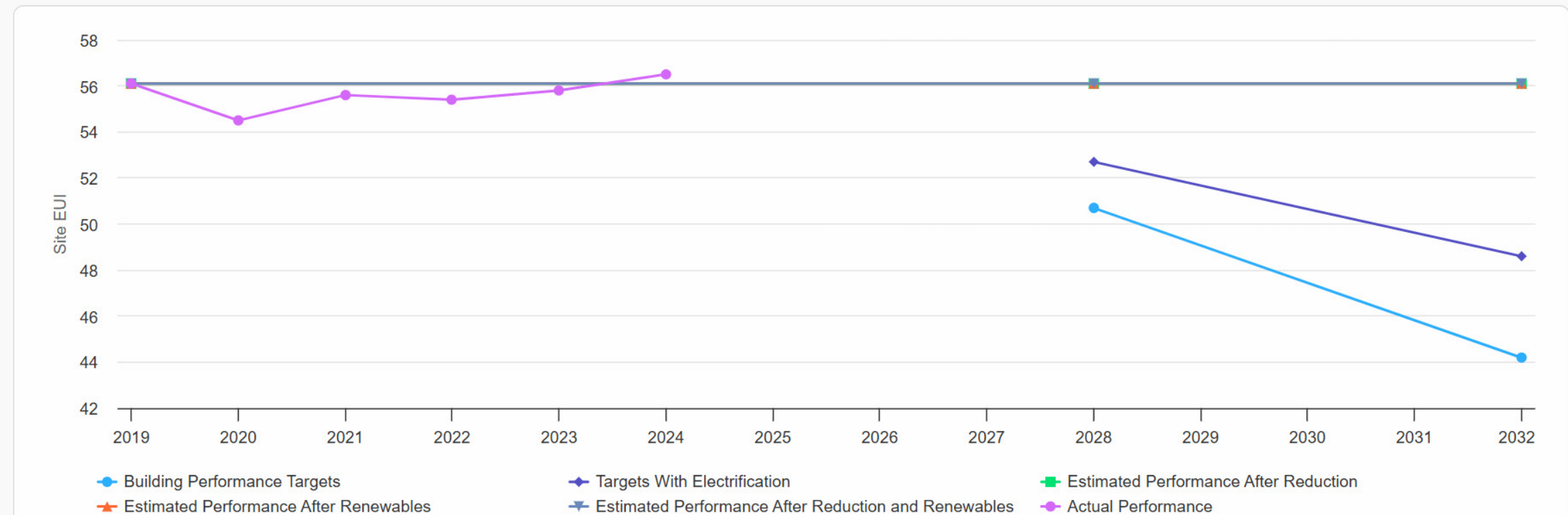
Target	Target Year <a href="#">?</a>	Target EUI <a href="#">?</a>	Estimated Reduction (%) <a href="#">?</a>	Estimated Reduction from Renewables (kBtu/sq. ft.) <a href="#">?</a>	Estimated EUI after Reduction (kBtu/sq. ft.) <a href="#">?</a>
First Target	2028	50.7	<input type="text" value="0"/> %	0.0	56.1
Second Target	2027	47.4	<input type="text" value="0"/> %	0.0	56.1
Final Target	2032	44.2	<input type="text" value="0"/> %	0.0	56.1

## Renewable Energy Projects

Add New

Year	Generated Locally? <a href="#">?</a>	Energy Generated (kWh)	Calculated Performance	Actions
<p>No Renewable Projects Created</p> <p>Click 'Add New' to add a project</p> <p>All renewable energy projects entered are assumed to be long-term contracts. Short-term contracts or subscriptions may be used on a declining scale to support interim targets. For further details, please refer to Section 6.2 of the Technical Guidance.</p>				

## Building Performance Forecasting





# ENERGIZE DENVER Penalties

BUILDINGS ON ORIGINAL BPS TIMELINE	\$0.15/kBtu above target
BUILDINGS ON UPDATED BPS TIMELINE	\$0.23/kBtu above target
BUILDINGS WITH A TIMELINE EXTENSION	\$0.35/kBtu above target
BUILDINGS THAT REQUEST AN EXTENSION AFTER DEC 31 OF THEIR TARGET YEAR	Additional <b>\$0.10/kBtu</b> above target on top of existing penalty
BUILDINGS THAT NEVER SUBMITTED A BENCHMARKING REPORT	<b>\$10 per Sq. Ft.</b>

# DENVER SAMPLE BUILDING

Multifamily  
60,000 Sq. Ft.

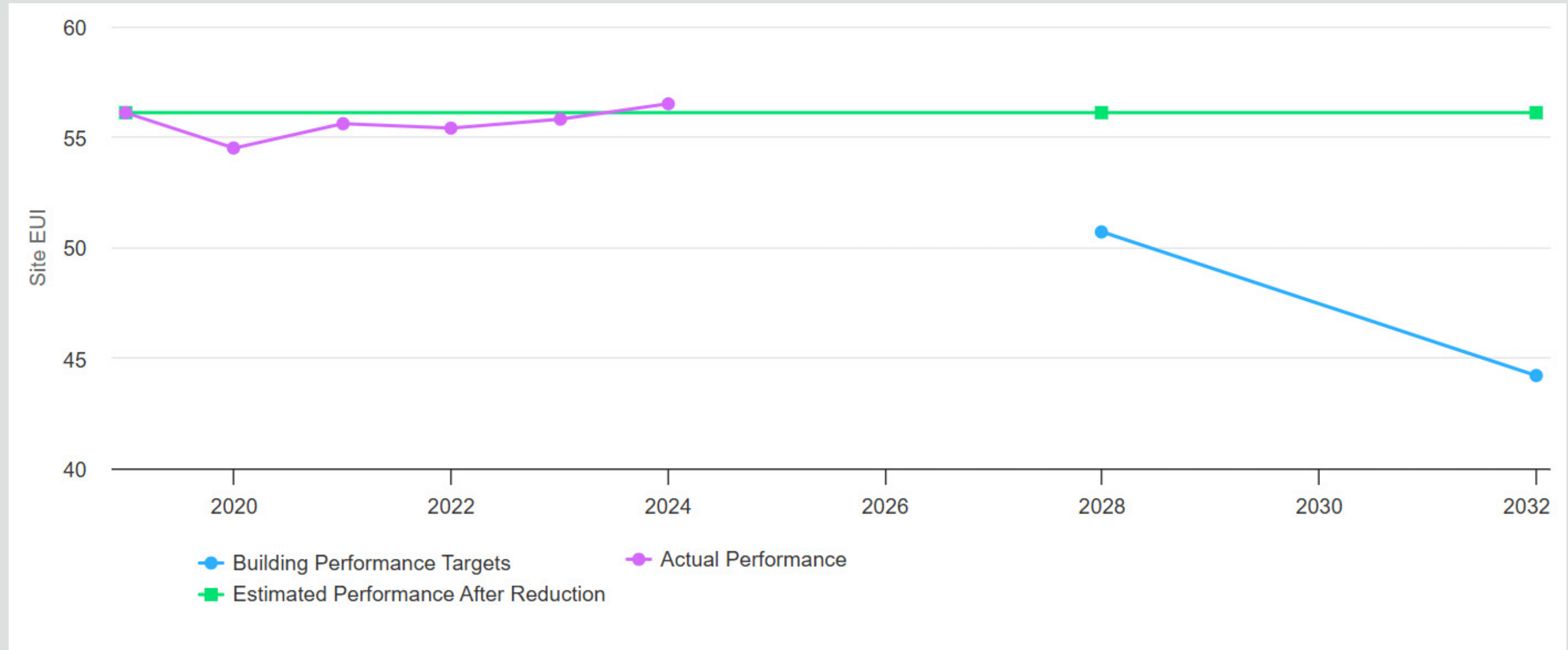
Baseline Year  
2019

Baseline EUI  
56.1

2028 Target  
Site EUI - 50.7

2032 Target  
Site EUI - 44.2

## THE COST OF NO-ACTION



Compliance Period	Potential Fine Without Reduction	Potential Fine With Reduction and Renewable
2028	\$74,498.89	\$74,498.89
2027	\$120,025.98	\$120,025.98
2032	\$164,173.47	\$164,173.47

# DENVER SAMPLE BUILDING

Multifamily  
60,000 Sq. Ft.

Baseline Year  
2019

Baseline EUI  
56.1

2028 Target  
Site EUI - 50.7

2032 Target  
Site EUI - 44.2

# ESTIMATED REDUCTIONS



**ENERGIZE DENVER**  
Building Performance Forecasting Calculator

[Benchmarking](#) [Performance](#) [Resource Center](#) [Portal](#) [Map](#) [Look Up Tool](#) [?](#)

## Building Details

Building ID [?](#)



Building Address



Building Area [?](#)

Baseline Year [?](#)

Baseline EUI [?](#)

Will be 80% Electrified by Final Target?

## Base Metrics

Compare to Baseline or Most Recent?

Selected EUI for Calculations





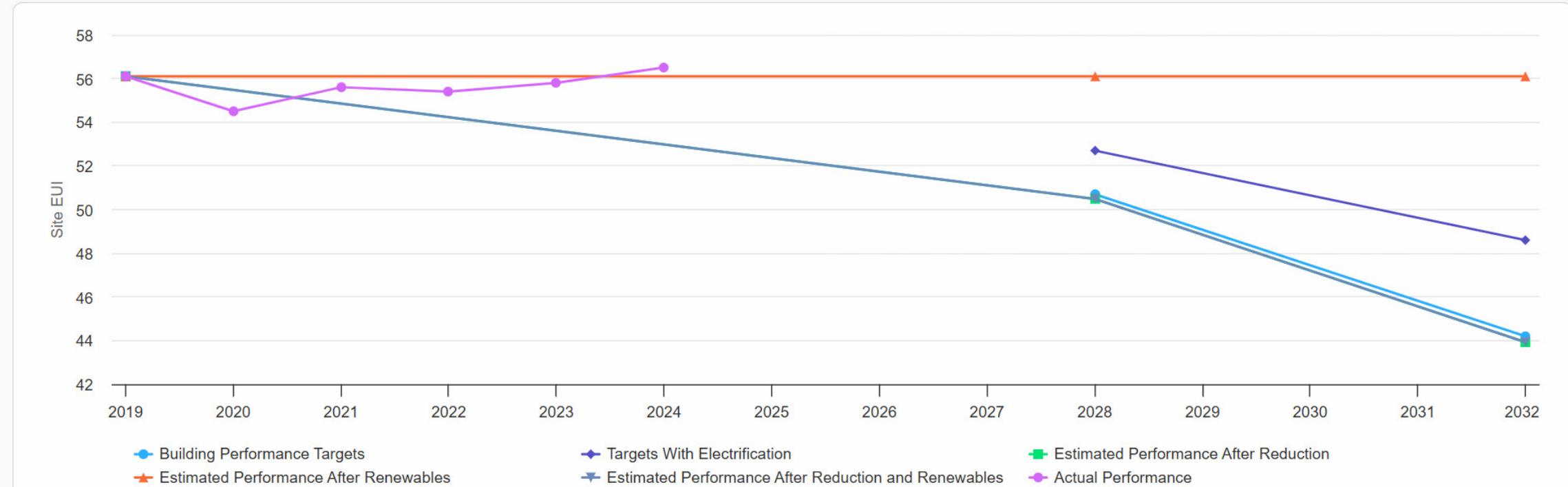
## Site Energy Use Intensity (EUI) Reduction Forecast

Target	Target Year <a href="#">?</a>	Target EUI <a href="#">?</a>	Estimated Reduction (%) <a href="#">?</a>	Estimated Reduction from Renewables (kBtu/sq. ft.) <a href="#">?</a>	Estimated EUI after Reduction (kBtu/sq. ft.) <a href="#">?</a>
First Target	2028	50.7	<input type="text" value="10"/> %	0.0	50.5
Second Target	2027	47.4	<input type="text" value="0"/> %	0.0	50.5
Final Target	2032	44.2	<input type="text" value="13"/> %	0.0	43.9

## Renewable Energy Projects

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## Building Performance Forecasting



# DENVER SAMPLE BUILDING

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60,000 Sq. Ft.

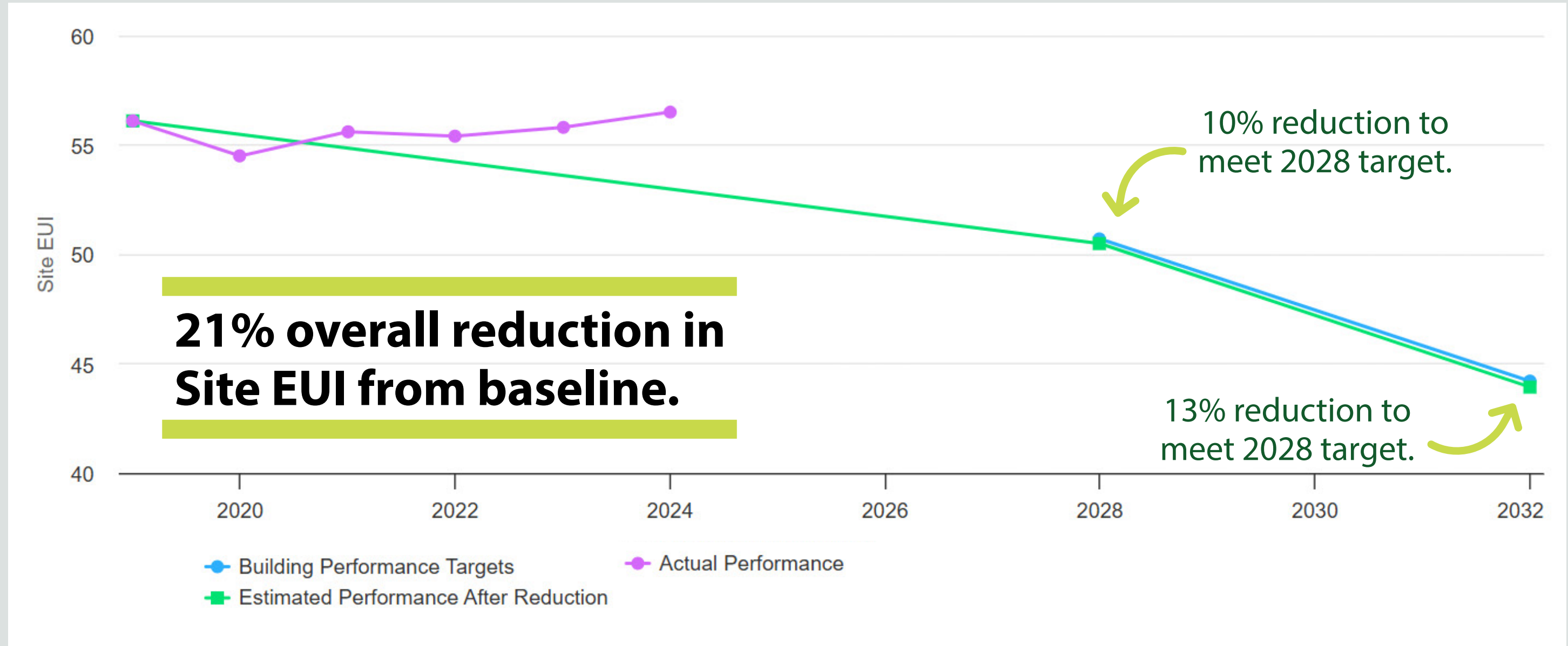
Baseline Year  
2019

Baseline EUI  
56.1

2028 Target  
Site EUI - 50.7

2032 Target  
Site EUI - 44.2

## HITTING THE TARGET



Compliance Period	Potential Fine Without Reduction	Potential Fine With Reduction and Renewable
2028	\$74,498.89	\$0
2027	\$120,025.98	\$42,629.92
2032	\$164,173.47	\$0

# TIMELINE

Building Performance  
Colorado Targets

Denver Performance  
Targets  
(Original Timeline)

Denver Performance  
Targets  
(Extended Timeline)

ENERGY STAR®  
Benchmarking

2024

2026

2028

2030

2032



**Show Me  
the \$\$\$**



## USING PACE FINANCING TO PAY FOR:

### 1. YOUR RETROFIT

### 2. AS PART OF YOUR CAPITAL STACK

### 3. SEISMIC RETROFITS

#### **BENEFITS**

- **No cash out of pocket for retrofits**
- **Property tax assessment could be covered by energy savings**
- Pay Assessment on property taxes
- Off-book financing for energy projects & seismic retrofits
- Loan terms range from 10 - 30 years

#### **HURDLES**

- Senior lender must approve PACE as first position

Assessment transfers with property if you sell (Benefit *and* Hurdle).

## GRANTS AND INCENTIVES FOR **ENERGIZE DENVER**

### ▶ **Energy Audit Rebates**

- Available to help offset the costs of energy audits for buildings required to comply with Energize Denver
- Can be awarded retroactively for audits completed after Nov. 17, 2022

### ▶ **Electrification Project Implementation Assistance**

- Designed to assist owners in working with designers, engineers, and contractors to electrify HVAC and water heating systems.
- Applications expected to open Q2 2026

*Incentives offered by Denver can be stacked with rebates from Xcel Energy and other entities.*

# CASE STUDY LED RETROFIT VALUATION INCREASE\* \$895,043

\*Assumes a 7% cap rate.

**Building Type**  
Office

**Scope**  
LED Lighting Retrofit

**Total Investment**  
\$ 187,184

**Annual Cost Savings**  
\$ 62,653



**136,505 KWh**

Energy  
Reduction



**\$ 47,777**

Energy Cost  
Savings



**\$ 6,650**

Maintenance  
Savings



**\$ 8,226**

HVAC  
Savings



**3 Years**

The project pays  
back in 3 years.



**32%**

This is the return on  
investment over  
analysis period.



**\$432,424**

This is used in  
budgeting to  
analyze profitability  
of investment.

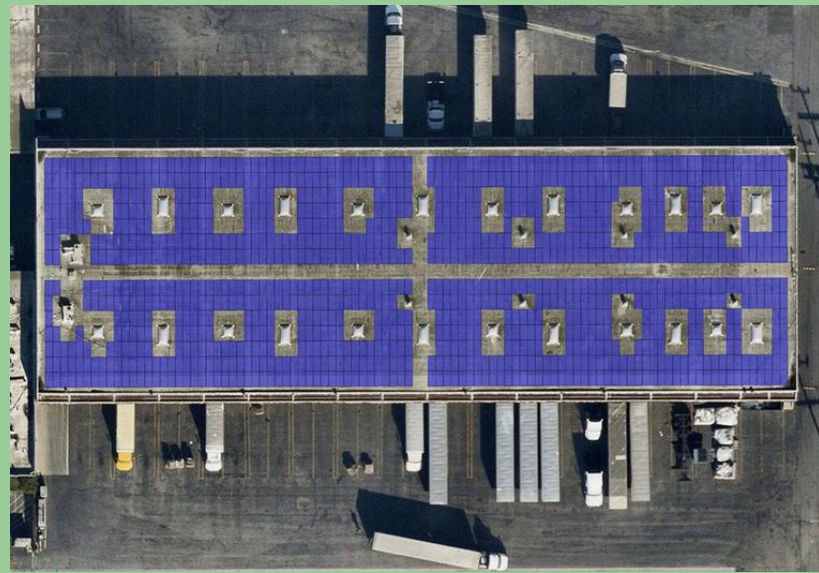


**30%**

This is the metric  
used to measure  
profitability of  
potential investment.

# CASE STUDY SOLAR PV VALUATION INCREASE\* \$ 619,620

\*Assumes a 5% cap rate



## Property Type

Distribution Center

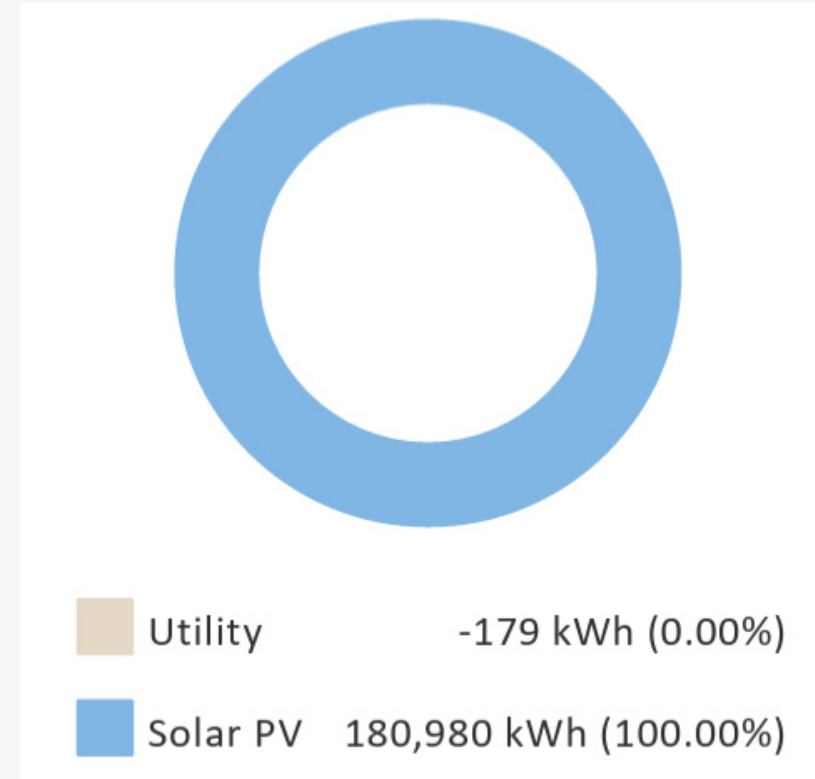
## Property Size

52,000 Sq.Ft.

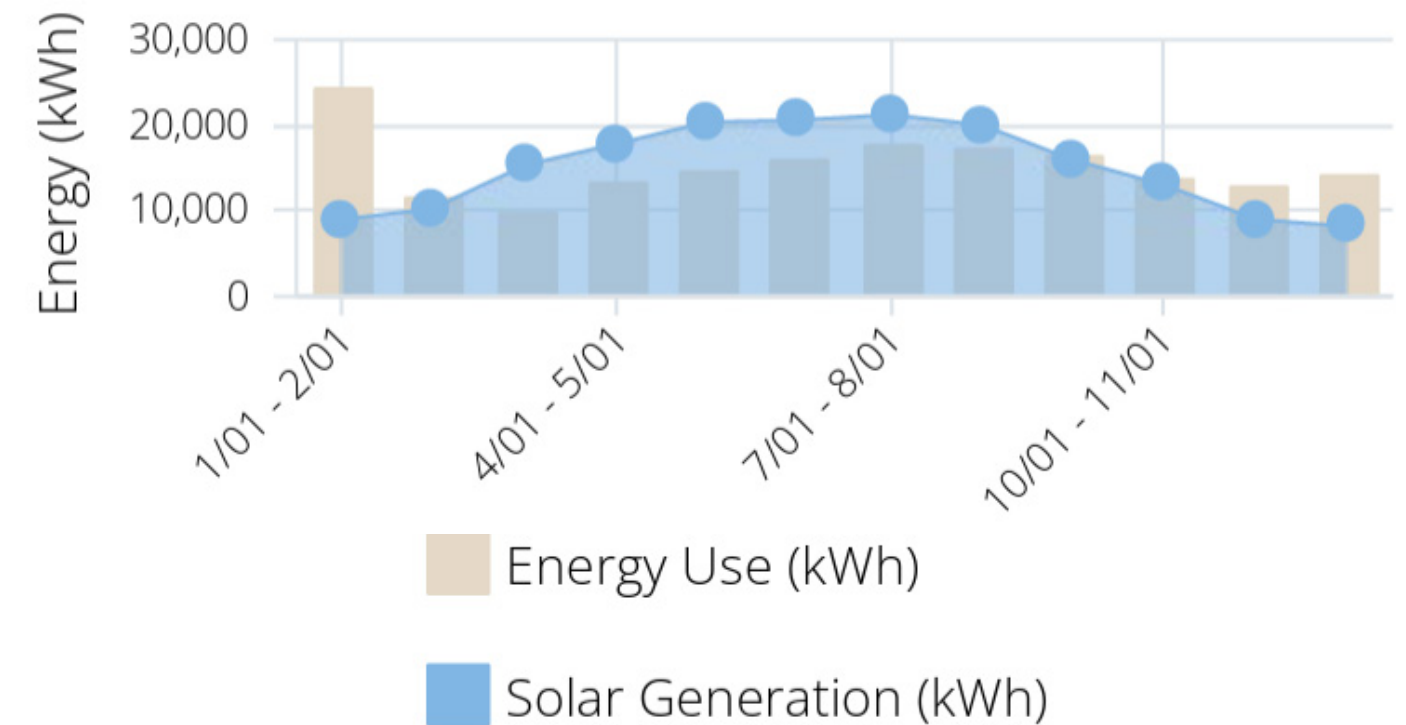
## Project Scope

Solar PV (120.0 kW-DC)

## Energy Consumption Mix



## Monthly Energy Use vs Solar



## Solar PV System

Solar PV System Cost	<b>\$340,000</b>	
Federal Tax Credit (ITC)	<b>-30%</b>	
Federal - MACRS Bonus Depreciation**	<b>-20%</b>	** Assumes a 24% Federal,
State (CA) 10-Yr Depreciation**	<b>-10%</b>	and 10% state tax rate
IRA Community Tax Credit Bonus	<b>-10%</b>	

---

<b>Net Solar PV System Cost</b>	<b>\$88,400</b>
<b>Payback Period</b>	<b>3.7 Years</b>

<b>First Year Electricity Savings</b>	<b>\$30,981</b>
<b>Savings Over 25 Years</b>	<b>\$1,414,414</b>

# VCA GREEN | ENERGY STRATEGY

1

## Report & Verify

Building performance

- Benchmarking Disclosure Compliance
- Third-Party Data Verification
- Benchmarking Consultation
- Building Performance Dashboard

2

## Plan

Energy improvements

- Building Performance Standards (BPS) Compliance
- ASHRAE Level 1-3 Audits & RCx Reports
- Data Analysis
- Energy & Water Consulting
- Owner's Rep Services

3

## Capture

Incentives & tax benefits

- Incentive Management
- Tax Credits & Deductions
- Project Financing

4

## Maintain

Performance targets

- Post project M&V
- Ongoing benchmarking
- Utility Bill Analysis
- Energy Monitoring



Green

## Building Life Cycle Services

### SUSTAINABILITY CONSULTING

- Portfolio Management
- LEED® Green Building Program
- CALGreen
- GAP Analysis
- Whole Building Life Cycle Assessment (LCA)
- AIA 2030 Compliance
- Data Management
- Data Analysis
- (kW) Demand Management
- Carbon Accounting
- GHG Emissions Calculations
- Third-Party Data Verification

### ENERGY MODELING

- Energy Modeling | New Construction
- Energy Modeling | Additions & Alterations
- Title 24 Energy Modeling
- ASHRAE Energy Modeling

### GREEN BUILDING CERTIFICATIONS

- LEED Homes (single and multi-family)
- LEED BD+C
- LEED ID+C
- LEED O+M
- Parksmart
- National Green Building Standard®
- DOE Efficient New Homes
- GreenPoint Rated
- Sustainable SITES Initiative®
- TRUE Zero Waste
- ENERGY STAR®
- BREEAM®
- Fitwel®

### CODE & DISCLOSURE COMPLIANCE

- California Title 24
- International Building Code
- Third-Party Data Verification
- ENERGY STAR Benchmarking
- Building Performance Standards
- GRESB

### PERFORMANCE TESTING & Cx

- Commissioning
- Enhanced Commissioning
- Acceptance Testing
- Energy Code Compliance  
ECC Testing (formerly HERs)

### AUDITS

- ASHRAE Level I, II, III
- Lighting
- Water
- Waste
- Retro-commissioning Reports

### OWNER'S REP SERVICES

- Utility & Federal Incentive Management
- Solar PV and Battery Optimization
- LED lighting & HVAC Retrofits
- Energy Monitoring
- EV Charging Systems
- PACE Financing Management

# Q & A



**Marika Erdely**  
Principal

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