

# Colorado's Building Performance Standards

2022 National Energy Codes Conference

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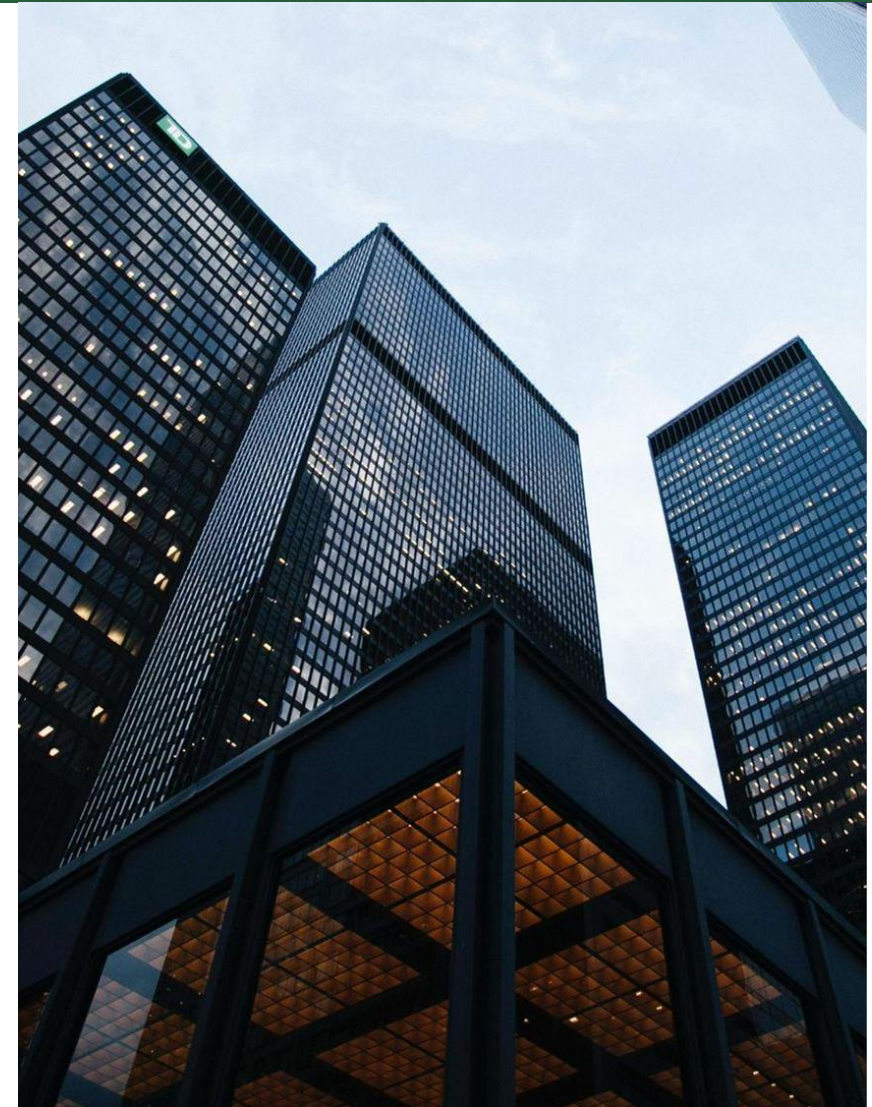
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# Agenda

- Legislative Background
- Colorado BPS Policy Overview
- Challenges & Lessons Learned
- Colorado's New Energy Code Legislation



[Photo Source](#)

# Colorado's Building Performance Standards

## Legislative Background



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# Achieving Colorado's Climate Goals



## Colorado's GHG Pollution Reduction Roadmap

identified near-term actions the State could take to reduce GHG emissions economy wide 50% by 2030.

- ▷ One of the near-term actions identified to meet emission reductions in the building sector were building performance standards.

The “Energy Performance for Buildings” Statute (or [House Bill 21-1286](#)) established **building benchmarking and performance standards** for the building sector.

- ▷ 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.

# Colorado's Benchmarking Program

- ▶ House Bill 21-1286 required the Colorado Energy Office (CEO) to develop a statewide benchmarking program, now referred to as *Building Performance Colorado (BPC)*. This program requires **commercial, multifamily and public buildings 50,000 square feet or larger** to report their annual energy use to CEO.
- ▶ **Benchmarking** is simply the process of tracking a building's energy use through its utility energy data and comparing the building's energy use to similar building types. Benchmarking turns the information on a utility bill into knowledge from which a building owner can act.
- ▶ Building owners are required to submit their energy usage via Energy Star Portfolio Manager by **December 1, 2022**, and by June 1st of every subsequent year.

To find out more information about Colorado's benchmarking program, visit the website at [buildingperformanceco.com](https://buildingperformanceco.com).



# Building Performance Standards

House Bill 21-1286 also established **building sector-wide GHG emission reduction targets of 7% by 2026 and 20% by 2030** (from a 2021 baseline), which will be met with Building Performance Standards (BPS).

- ▷ This means that building owners will need to meet certain BPS targets by 2026 and 2030.

[Building Performance Standards](#) create energy performance targets, such as specific levels of energy or GHG emission performance, for buildings to meet after a set amount of time.

- ▷ These standards help drive energy efficiency improvements and reduction in energy use and GHG emissions in building stock over time.

Colorado building owners **do not need to take any action** towards meeting the building performance standards until they go into effect after June 2023.

# Colorado's Building Performance Standards

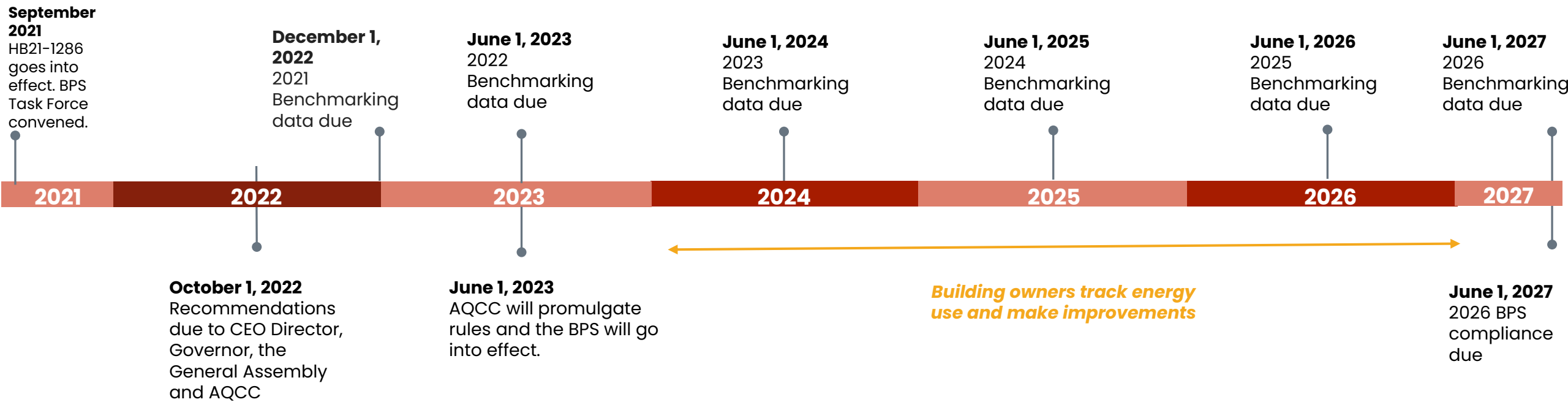
## BPS Recommendations & Lessons Learned



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# Colorado Building Performance Standard Timeline

## Benchmarking Deadlines



## Building Performance Standards Deadlines



# Pathways to BPS Compliance

## Main Compliance Pathways

Main compliance metric:  
Site EUI & Property-type targets

Electrification  
of 80% of load

Site EUI Met

Energy  
Efficiency

Site EUI Not Met -  
Additional Options

or

## Alternative Compliance Pathways

*\*Additional Documentation Required*

Renewables

Partial  
Electrification

Demand Flexibility  
*\*(Still to be decided)*

Building owners can use  
these additional actions  
for partial credit to  
comply with the BPS.

Site EUI Met

Site EUI Still  
Not Met

## Compliance Adjustment Options

*\*Additional Documentation Required*

Property requires a  
compliance  
adjustment

Compliance  
Adjustment  
Options

Target  
Adjustment

Timeline  
Adjustment

For buildings that already know they will  
not be able to meet their target or  
timeline due to major planned capital  
improvement projects or refinancing.

For buildings that demonstrate an  
inability (due to financial hardship or lack  
of resources) to meet the EUI  
compliance requirements.

# Colorado BPS - Challenges

- ▶ Heard from Task Force and building owners that there was a need for flexibility within the BPS policy
- ▶ State had to account for GHG reductions from buildings and NOT from statewide decarbonization of electricity or natural gas utility grids
- ▶ Communicating with building owners on the difference between the building sector GHG goals and the compliance metric (GHG vs. Site EUI)
- ▶ Lack of complete and accurate data sources
- ▶ Lack of building energy data to inform BPS targets

# Colorado BPS - Lessons Learned

- ▷ Heard from Task Force and building owners that there was a need for flexibility within the BPS policy
  - **Provided primary compliance pathways, alternative compliance pathways, and adjustment options**
- ▷ State had to account for GHG reductions from buildings and NOT from statewide decarbonization of electricity or natural gas utility grids
  - **Stakeholder input created a Task Force to help State draft BPS policy**
- ▷ Communicating with building owners on the difference between the building sector GHG goals from the compliance metric (GHG vs. Site EUI)
  - **Site EUI is tracked by building owners in ESPM, State will track sector GHG reductions**
- ▷ Lack of complete and accurate building information
  - **Working with local programs and building owners on confirming building information**
- ▷ Lack of building energy data to inform BPS targets
  - **State began benchmarking program, will begin setting EUI targets in September 2022**

# Colorado's New Building Code Legislation



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# Building Performance Standards & New Construction

## HB22-1362: Energy-Efficient Building Codes - Passed May 2022

This landmark bill increases the statewide minimum performance requirements for building energy codes by establishing a new Energy Codes Board to review, approve, and recommend building energy codes. The bill includes the composition, objectives, and operating procedures of the new Board.

### Requirements:

- ▷ Cities and counties with building codes must adopt at least the 2021 International Energy Conservation Code (IECC) when they update other building codes between July 1, 2023 and July 1, 2026. This adoption must include electric and solar ready provisions that an Energy Code Board will develop.
- ▷ Cities and counties with building codes must adopt a low energy and carbon code based on a version of the IECC approved by an Energy Codes Board when they update one or more building codes after July 1, 2026. This code will include pathways for both all-electric and mixed fuel homes and buildings.

### Background:

- ▷ With recent improvements in model energy codes as well as Colorado's targets for dramatically cutting climate emissions, it is timely and important to update the state's minimum energy code requirements.
- ▷ Twice previously, in 2007 (HB 07-1146) and 2019 (HB 19-1260), Colorado passed legislation establishing minimum requirements for building energy efficiency codes adopted by local governments.
- ▷ Energy codes save residents money on energy bills month after month, for the entire lifetime of a home or building. The latest code reduces average resident energy bills by 8-9%.

# Thank you!

Please visit the Colorado Energy Office's [website](#) for more information about the BPS the Task Force.

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