

Zero Carbon Construction Code (ZC3)

Community Advisory Group & Stakeholder Summary (Jan–July 2025)

Project Overview

The **Zero Carbon Construction Code (ZC3)** project aims to adopt a zero-carbon construction code for **new buildings by 2030**, aligning with the *Our Climate Future* plan and advancing citywide decarbonization goals. This four- and one-half year initiative is supported by a funding award from the U.S. Department of Energy and the Bipartisan Infrastructure Law and led in partnership with national experts from the University of Central Florida – Florida Solar Energy Center, New Buildings Institute, and the International Code Council. The Colorado Energy Office is the supporting state agency.

The code will be **performance-based**, using **Energy Use Intensity (EUI)** and carbon emission metrics to guide compliance. It will offer **flexible pathways** for builders, allowing innovation and choice in how targets are met—**without mandating a gas ban**. The ZC3 will apply to **new construction only**, not retrofits.

- **Target Adoption:** Late 2025
- **Implementation target:** 2026

Stakeholder & Advisory Group Engagement

In early 2025, the city convened a **Community Advisory Group** made up of builders, affordable housing partners, sustainability groups, building code consultants, community members, utilities, and City staff (*full makeup of group at bottom). This group met monthly from January to July 2025 to discuss opportunities, concerns, and strategies related to the new code. Meeting topics included the performance-based code framework, affordability, emissions targets, industry capacity, and education.

Recurring themes across meetings included:

- Strong support for reducing emissions and improving long-term housing quality.
- Emphasis on **health, comfort, energy savings, and equity**.
- Concerning short-term **costs, labor readiness, and builder training**.
- Desire for **phased implementation, clear compliance options, and education** for builders and the public.

Meeting Schedule and topics:

The advisory group met a total of 7 times in 2025, with the following schedule and focus areas:

- January 23, 2025 – Project kickoff, project definitions, background, and scope
- February 19, 2025 – Compliance pathway approach, requirements and barriers
- March 31, 2025 – Zero carbon definitions, example modeling review
- April 25, 2025 – Impacts on housing costs & affordability

- May 25, 2021 – Housing costs (continued) and Implementation resources
- June 18, 2025 – Review and evaluate established targets and proposed trajectory
- July 23, 2025 – Overview of appendices and final methodology

Key Technical Insights

Energy Code Framework

- Currently allows for multiple compliance paths: Prescriptive, Total UA, and Performance Path (preferred), ERI / ASHRAE 90.1.
- Transitioning to a single path (Performance path) enables real-world energy outcomes, trade-offs, and data-informed decisions for all new buildings and homes.
- Incremental EUI targets (starting in 2026) aim for approximately 11% efficiency improvement per code cycle to meet 2030 goals. Historically, past energy code cycles have seen 5-8% improvements in efficiency but have been as high as 19%.

Code Scope

- Focus on operational carbon emissions only (embodied carbon may be addressed in the future).
- Efficient electric homes can likely meet 2024 energy targets without requiring renewables.
- Gas homes will likely need renewables like solar PV or battery storage to comply.

Electric Grid Readiness

- Platte River Power Authority (PRPA) is on track for 88% carbon-free electricity by 2030.
- Grid integration studies are ongoing to support renewable expansion.

Affordability & Equity Discussions

Stakeholders expressed concern about potential short-term cost increases due to high-performance materials, rising interest rates, and limited labor availability. Smaller builders in particular highlighted fears of added complexity, permitting delays, and the ability to recover costs.

However, there was also a clear focus on the **long-term benefits** of zero-carbon buildings, including:

- **Lower utility bills** and **improved indoor air quality**
- **Better long-term home value** and durability
- **Healthier homes for all residents**, with all new builds being built to the same standard according to the code.

Key solutions discussed:

- Expanded **training and education** for builders, HVAC professionals, and the public.
 - Public awareness campaigns to shift expectations and understanding of "better" homes.
 - Financial support in the form of **incentives, rebates, and state/local funding**.
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Quotes from the Advisory Group

"Education of builders and the HVAC industry is going to be key."

"Educate the public that their air could be cleaner and their health better... if realtors and the public understand better houses, the industry will provide better houses."

"We all want to build the most efficient and healthy homes the market can support."

"There will be some pushback... demand is high, and labor is not easily trained or replaced."

"I do not see the value proposition for adding complexity and cost vs. housing affordability."

"The city should act as a partner rather than a regulator...prefer to see support for our growth and making the economy better."

"...the code is good BUT, it cannot raise the cost of homes even \$1. Every cost increase that occurs eliminates buyers from the possibility of purchasing a home."

"Energy code changes are needed. The negatives will be short-term. Long-term, we'll be ahead of the curve in building better homes."

Community Advisory Group participants:

Adam Berry	Colorado Energy Office
Rusty Buick	EnergyLogic, Inc
Sara Coutts	Habitat for Humanity
Gabe Dunbar	Saunders Construction
Forrest Hancock	Montava Development & Construction, LLC
Jason Harrington	Harrington Construction LLC
Mark Houdashelt	Fort Collins Sustainability Group
Campbell Johnson	NOCO, AeroSeal
Carly Johansson	Housing Catalyst
Brian Johnston	CO-WY Workforce Development Climate Resilience Engine
Tony Mitchell	Citizens for Climate Education
Max Moss	Montava Development & Construction, LLC
Ken Orgoglioso	Citizens for Climate Education, Colorado Green Latinos
Andrew Paulick	Dream Finders Homes
Alex Pray	Platte River Power Authority
Karen Ramsey	Building Wellness
Tarik Simmons	NOCO AeroSeal
Caleb Sulzen	Building Code Guru
Mark Teplitsky	Peak81 Commercial Construction Consulting
Warren Vann	Community Member
Dr John Volckens	Colorado State University – Environmental Engineering
Kevin VonFeldt	Platte River Power Authority

Staff:

Sue Beck-Ferkiss	Fort Collins Social Sustainability
Maren Bzdek	Fort Collins Historic Preservation
Max Duggan	Fort Collins Utilities
Vanessa Fenley	Fort Collins Social Sustainability
Peeyoosha Hiremath	Fort Collins Utilities, Light & Power
Nicole Koehn	Fort Collins Utilities
Cody Snowdon	Fort Collins Utilities, Light & Power
Brad Smith	Fort Collins Utilities
Kimberly Stein	Fort Collins Utilities
Damien Wilson	Fort Collins Building Services