



**CITY OF BOULDER  
CITY COUNCIL AGENDA ITEM**

**MEETING DATE: August 17, 2023**

**AGENDA TITLE**

Consideration of a motion to accept the June 22, 2023, Study Session Summary regarding 2024 City of Boulder Energy Conservation Code Development Project.

**PRESENTER(S)**

Nuria Rivera-Vandermyde, City Manager  
Brad Mueller, Director of Planning and Development Services  
Jonathan Koehn, Director of Climate Initiatives  
Edward Stafford, Senior Engineering Manager  
Rob Adrians, Chief Building Official  
Josh Hanson, Energy Code Compliance Principal Examiner  
Carolyn Elan, Sustainability Senior Manager  
Hella Pannewig, Senior Counsel

**EXECUTIVE SUMMARY**

This agenda item provides a summary of the June 20, 2023, City Council Study Session regarding 2024 City of Boulder Energy Conservation Code (CoBECC) Development Project. The study session served as an update to council on the project and to obtain feedback from council on the strategies staff should continue to develop and refine for future consideration by council. The staff memorandum and presentation at the June 22, 2023, City Council study session included a summary of the project approach, analysis and recommendations.

Staff requested council’s feedback on the following:

1. Does City Council agree on the proposed areas of focus for the 2024 CoBECC?
2. Are there other areas of focus that should be included?
3. Does City Council have recommendations on the community engagement strategies for this project?

In their feedback, council was largely supportive of staff’s recommended strategies. Council provided unanimous support for developing an all-electric new construction code option for consideration. Council also indicated their preference for increasing the requirements for electric vehicle charging infrastructure. Finally, council expressed strong interest in strategies to better address embodied carbon, whether within the CoBECC update or as an update within other building and/or land use codes.

**STAFF RECOMMENDATION**

**Suggested Motion Language:**

Staff requests council consideration of this matter and action in the form of the following motion:

Motion to accept the June 22, 2023, Study Session Summary regarding 2024 City of Boulder Energy Conservation Code Development Project.

**ATTACHMENT(S)**

**Attachment A** – Summary of the June 22, 2023, Study Session regarding 2024 City of Boulder Energy Conservation Code Development Project

**June 22, 2023, Study Session Summary  
2024 City of Boulder Energy Conservation Code Development Project**

**PRESENT**

**City Council:**

Mayor Aaron Brockett, Mayor Pro Tem Mark Wallach, Rachel Friend, Nicole Speer, Tara Winer, Matt Benjamin, Lauren Folkerts, Junie Joseph, Bob Yates

**Staff:**

Nuria Rivera-Vandermyde, City Manager; Brad Mueller, Director of Planning and Development Services; Jonathan Koehn, Director of Climate Initiatives; Rob Adriaens, Chief Building Official; Josh Hanson, Energy Code Compliance Principal Examiner; Carolyn Elan, Sustainability Senior Manager; Hella Pannewig, Senior Counsel

**External Partners and Consultants:**

Sally Blair, NORESKO; Robby Schwarz, BUILD Tank Inc.

**STAFF QUESTIONS FOR COUNCIL**

Staff requested council's feedback on the following:

1. Does City Council agree on the proposed areas of focus for the 2024 CoBECC?
2. Are there other areas of focus that should be included?
3. Does City Council have recommendations on the community engagement strategies for this project?

**COUNCIL DISCUSSION**

**COUNCIL QUESTIONS**

Councilmember Folkerts asked whether there are more standardized codes that can be used for setting targets for commercial construction, such as the International Green Construction Code (IGCC).

J. Hanson answered that, yes, staff is looking at the IGCC, as well as what other jurisdictions have adopted and will incorporate this into the staff analysis and final recommendations. Some neighboring jurisdictions are updating to an Energy Use Intensity (EUI) metric consistent with the current CoBECC and will be considered, as well as we strive for consistency across these boundaries.

Councilmember Folkerts noted that requirements imposed for Level 3 Alterations may serve as a disincentive to retain existing structures and may result in higher greenhouse gas (GHG) emissions due to the embodied carbon impacts. Is staff considering making adjustments to make it easier to do retrofits from a zoning standpoint and lessening performance targets to encourage reuse? Would it be possible to ease the requirements

through the alteration/addition process, for example allowing the addition of exterior insulation to encroach into setbacks without requiring additional zoning review?

J. Hanson responded that, yes, we see a higher level of existing building remodels in relation to new construction and therefore, staff will want to really evaluate the pathway for alterations, additions and repairs especially as we see more homes classified as historical. They still need to toe the line with energy code but we need to look at what makes sense vs what would be considered an undue burden for the type or project scope.

C. Elam noted that when the 2020 CoBECC was developed, for the residential section, only the requirements for new residential construction were made more stringent- the Level 1, Level 2 and Level 3 Alteration requirements stayed at the 2017 CoBECC levels – as a way to incentivize structure retention. With this update staff is intending to do engagement to evaluate the degree this type of allowance strategy might influence outcomes for both residential and commercial sections.

J. Koehn noted that while this project is focused on the energy code, it is also a great opportunity for the departments to come together to look at the broader roadmap and evaluate the tools that could be available. Staff should consider looking at a more comprehensive approach to the full suite of regulation including the energy code, building codes, and land use codes since they are intended to work together.

R. Adriaens noted that staff is planning to update to the 2024 I-Codes during 2024 and embodied carbon considerations are planned to be part of that update.

Councilmember Folkerts noted that changes in building technologies, can impact when it comes to deconstruction (i.e., spray foam) in which recyclable wood products are now contaminated. In looking at the deconstruction piece, would recyclability work be included here or in the building code work?

C. Elam responded that the Climate Initiatives Circular Economy Team is currently conducting working groups on deconstruction to better identify successes and challenges, and how this can inform best practices moving forward. This will help inform the overall code roadmap as well as identify some near-term opportunities, such as Class 4 shingles or insulation requirements. Additionally, staff will review the proposed energy code updates to mitigate barriers to the use of low-carbon materials, as well as opportunities to incentivize the use of those materials.

Mayor Brockett asked for clarification regarding the EV parking requirements and the difference between what was included in the packet and what was represented in the staff presentation.

J. Hanson and C. Elam responded that the values reflected in the packets are the existing requirements for the 2020 CoBECC. The packet did not present proposed adjustments to those requirements since engagement on what those adjustments should be is ongoing. At a minimum, there will be adjustments to align with the new state requirements. Both

Planning Board and the Environmental Advisory Board expressed a desire for a higher space allocation, particularly for multi-family and larger commercial.

Councilmember Benjamin noted that Boulder typically far exceeds what the state is doing and asked if staff anticipates continuing this trend.

J. Hanson and C. Elam responded that, yes, staff was expecting that in advancing from the 2020 CoBECC, the proposed 2024 CoBECC would exceed the state minimum code in most if not all areas.

Councilmember Benjamin asked whether there were strategies that could be used to encourage people to exceed the code requirements? For example, could there be tiers where achieving the higher tier resulted in some other benefit or tradeoff such as a streamlined permit process? How can we get the energy code to leverage and incentivize to get the things we want in our community not now, but 20 years from now?

J. Hanson responded that staff are planning to evaluate different tradeoff strategies as part of the project and have considered options such as a reduced energy performance target or credit towards the target for achieving certain outcomes, such as utilizing a lower embodied carbon material.

C. Elam noted the recently concluded community benefits project and that an “above and beyond” GHG strategy could be considered as part of a future update.

Councilmember Wallach noted the tension between affordable housing and technologies that are needed to for energy efficiency and conservation while being mindful of those costs for the smaller home. How will the cost of the home be impacted by the new requirements?

J. Hanson responded that consistent with past updates, there will be a cost benefit analysis performed to evaluate the net impact on affordability.

Councilmember Wallach asked if cross laminated timber (CLT) technology/material was being considered and could be encouraged here in the city? It is advertised as containing much less embodied carbon as compared to steel and concrete in buildings now. Would we be willing to go further and incentivize people to use CLT?

J. Hanson and C. Elam responded that CLT would be an allowable material of construction. Incentivizing its use could be part of the tradeoff strategy. Assessing any barriers or opportunities to incentivize its use could be included as part of the 2024 I-code update.

## **COUNCIL COMMENTS**

Councilmembers were unanimous in their support for staff to move forward with developing an all-electric new construction code option, with appropriate allowances, consistent with what Crested Butte and Denver has adopted.

Mayor Brockett echoed the feedback from council members Folkerts and Wallach on considering an energy efficiency allowance as a way to encourage lower embodied carbon materials. As noted, EV infrastructure requirements should be increased over the current 2020 and state minimum levels.

Councilmember Speer offered support for implementing strategies, including zoning changes, to encourage reuse of buildings. There should be further enhancement to code in order to support future reuse, recycling and dismantling at the end of the useful life. Addressing embodied carbon and consideration of the impact Boulder is having on other communities through its consumption of materials is critical.

Councilmembers Speer and Folkerts recommended that staff seek feedback homeowners and tenants who might be most impacted by the code changes.

Councilmember Folkerts expressed support for staff's proposed residential pathway option, noting it would align with a widely accepted program and has opportunities for rebates. Solar for commercial and 100% offset requirements for natural gas make sense. Agrees that EV infrastructure requirements should be increased. Councilmember Folkerts also reiterated the need to take near-term actions through code to address embodied carbon.

Councilmember Winer encouraged staff to do broad engagement and identified Empower our Future as one of the groups that staff should get feedback from.

### **NEXT STEPS**

Staff expect to return to council with draft code during Q3 2023 with a goal returning during Q4 2023 for public hearing and code adoption. Staff will also be updating the code development roadmap to address council's feedback, to include actions to address embodied carbon.