

MEMORANDUM

To: Columbia City Council

From: Abby Dickinson, Chair Climate and Environment Commission

A handwritten signature in black ink, appearing to be "AD", written over the printed name of Abby Dickinson.

Date: July 8, 2026

Re: CEC 2024 IECC Code Adoption Recommendation

The Climate and Environment Commission (CEC) appreciates the opportunity to provide a recommendation to City Council regarding the adoption of the 2024 International Energy Conservation Code (IECC). The CEC has reviewed the new provisions in the 2024 IECC and considered the recommendations from the Building Construction Codes Commission (BCCC), including their concerns related to housing affordability. Following its review, the CEC recommends adoption of the 2024 IECC, including the electric-ready and solar-ready appendices.

Affordability

The CEC recognizes the BCCC's concerns related to housing affordability and shares the goal of improving access to affordable housing. However, the CEC differs in how affordability should be evaluated. In addition to construction costs, the long-term costs of owning and operating a building, including utility bills, maintenance, and future retrofit costs, are significant determinants of housing affordability. Buildings constructed today will serve Columbia residents for many decades, making lifetime operating costs an important consideration. Like previous editions of the IECC, the 2024 code provides multiple compliance pathways that give builders flexibility in choosing the most cost-effective means of meeting the code's requirements. This flexibility helps manage compliance costs while allowing innovation in design and construction.

Housing affordability should account for both first costs and operating costs. A code that produces a slightly higher initial construction cost still makes homes more affordable if monthly savings on energy bills exceed the financing cost of the efficiency improvements. DOE's residential cost-effectiveness methodology evaluates this by considering energy savings, incremental construction and replacement costs, life-cycle cost, annual consumer cash flow, and simple payback.¹ Available analysis supports adoption. DOE issued an affirmative

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determination that the 2024 IECC improves energy efficiency relative to the 2021 IECC, with meaningful reductions in residential energy use and energy costs.² The Pacific Northwest National Lab performed a national cost-effectiveness analysis which found that the 2024 IECC residential prescriptive and mandatory provisions are cost-effective compared with the 2021 IECC across all climate zones, with national average life-cycle cost savings of \$2,954 per dwelling unit, a 2.5-year simple payback, and average positive cumulative cash flow within 1 year.³ Because Columbia currently enforces a code based on the 2018 IECC, the energy savings associated with adopting the 2024 IECC would likely exceed those based on a comparison between the 2021 and 2024 editions.

The CEC recognizes that first cost concerns are real, especially in a high-cost housing market. However, costs and benefits do not land equally amongst all those impacted: builders and developers are most directly exposed to first cost of construction increases, while residents and building owners shoulder decades of utility costs, comfort and health impacts, and future retrofit costs. City policy should consider the full chain of these impacts, including residents that will live in these buildings long after the initial sale. A narrow focus on first cost of construction risks burdening residents with avoidable operating costs for decades.

Good Governance

Model building codes are updated on a regular basis to reflect advances in construction practices, building science, and available technologies. Remaining on an older code for an extended period expands the gap between local practice and nationally recognized model codes, making future updates more difficult for both the construction industry and code officials. Regular, incremental updates allow jurisdictions to adopt changes in a more manageable manner while ensuring new buildings are reflective of current best practices.

Energy Choice

In addition to maintaining the existing solar-ready requirements, the CEC recommends adoption of the electric-ready provisions for residential and commercial buildings. Together the provisions preserve customer choice by ensuring residents and building owners can adopt new technologies over time without requiring immediate electrification or solar installation. The electric-ready and solar-ready provisions are a practical investment that protects residents, preserves flexibility for future building improvements, and supports implementation of the City

¹ U.S. Department of Energy, Methodology for Evaluating Residential Energy Code Updates (2024) https://www.energycodes.gov/sites/default/files/2024-10/residential_methodology_2024.pdf

² U.S. Department of Energy, Model Energy Code Determinations (2024). <https://www.energycodes.gov/determinations>

³ Pacific Northwest National Laboratory, Salcido et al., National Cost-Effectiveness of the Residential Provisions of the 2024 IECC, (2025). https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-35986.pdf

of Columbia's Climate Action and Adaptation Plan. By reducing the cost and complexity of future building upgrades, these provisions help decrease greenhouse gas emissions, improve local air quality, and support the City's long-term transition toward a more efficient and resilient building stock.

Providing the necessary electrical infrastructure during construction is significantly less expensive and disruptive than retrofitting a building years later. Likewise, designing buildings to accommodate future solar installations reduces the cost and complexity of adding solar should a building owner choose to do so. Electric-ready buildings are also better positioned to participate in future demand response and demand flexibility programs as utility technologies continue to evolve. By preserving flexibility and reducing future retrofit costs, these provisions provide lasting value to residents while advancing the City's adopted Climate Action and Adaptation Plan.

Federal Context

The CEC recognizes the wider federal policy context. DOE issued the affirmative determination in support of the 2024 IECC in December 2024, but is now seeking input on the cost-effectiveness methodology and released a new analysis emphasizing construction-cost increases and payback concerns related to the code.⁴ ⁵ To date, the Department has not released any supplemental documentation explaining the analysis. This differs from previous DOE determinations, which are accompanied by detailed documentation describing the analytical methodology. This evolving debate should not prevent Columbia from making a local, evidence-based decision. The most relevant question for Columbia is whether the 2024 IECC advances local goals while improving long-term affordability, resilience, and consumer value for our community.

Final Recommendation

For these reasons, CEC recommends adoption of the 2024 IECC as written and including the electric ready and solar ready provisions. The CEC further recommends the City address concerns related to the code update through implementation support, training for builders and inspectors, and a reasonable transition period, rather than declining to adopt the updated code.

⁴ Federal Register. Updating and Improving the Methodology for Assessing Affordability and Cost-Effectiveness of Building Energy Codes (2026). <https://www.federalregister.gov/documents/2026/05/04/2026-08646/updating-and-improving-the-methodology-for-assessing-affordability-and-cost-effectiveness-of>

⁵ U.S. Department of Energy. Energy Department Analysis Finds Proposed International Building Codes Would Cost Americans \$9.2 Billion Annually (2026). <https://www.energy.gov/articles/energy-department-analysis-finds-proposed-international-building-codes-would-cost>