FSEC Energy Research Center

UNIVERSITY OF CENTRAL FLORIDA

# Comparison of the 8th Edition Florida Building Code, Energy Conservation with IECC-2024 & ASHRAE 90.1-2022

## *Draft Residential 2024 IECC Changes Review Summary*

June 25, 2024

**Submitted to**

Department of Business and Professional Regulation
Office of Codes and Standards
2601 Blair Stone Road
Tallahassee, FL 32399
Order No. C1DF39

**Submitted by**

Jeffrey Sonne

**Disclaimer**

The Florida Solar Energy Center/University of Central Florida nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the Florida Solar Energy Center/University of Central Florida or any agency thereof. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the Florida Solar Energy Center/University of Central Florida or any agency thereof.

## Residential 2024 IECC Changes Review Summary

Residential 2024 IECC changes with respect to the 2021 IECC and 2023 Florida Building Code, Energy Conservation (FBC-EC) are summarized in the table below. The table contains six columns defined as follows:

**2024 IECC Section and Title:** The 2024 IECC code section number and title for the code change.

**ICC Code Change No.:** Proposed code change number in the ICC's *Complete Revision History to the 2024 I-Codes* document.

**Change Summary between 2021 IECC and 2024 IECC:** Brief description of the code change between the 2021 IECC and 2024 IECC.

**Change Summary between 2023 FBC-EC and 2024 IECC:** Brief description of the code change between the 2023 FBC-EC and 2024 IECC.

**Anticipated Energy Impact on FBC-EC if Adopted:** Anticipated energy use impact from the code change if it is adopted in the FBC-EC. "None" means the code change has no or negligible anticipated impact on energy use.

**Anticipated Cost Impact on FBC-EC if Adopted:** Anticipated construction cost impact from the code change if it is adopted in the FBC-EC. "None" means the code change has no or negligible anticipated impact on construction cost.

**References:**

*2023 Florida Building Code, Energy Conservation, 8th Edition*. (2023). International Code Council, Inc. https://codes.iccsafe.org/content/FLEC2023P1

*2021 International Energy Conservation Code*. (2021). International Code Council, Inc. https://codes.iccsafe.org/content/IECC2021P2

*2024 International Energy Conservation Code*. (2024). International Code Council, Inc. April 10, 2024 draft

*Complete Revision History to the 2024 I-Codes*. 2024. International Code Council, Inc.

**Residential Code Change Summary for 8th Edition (2023) Florida Energy Code vs. 2024 IECC**

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| **Chapter 1 [RE] Scope and Administration** | | | | | |
| R101.2 Scope | RED1-8-22 | Adds applicable dwelling and building types, a subsection noting application of appendices, and moves "design and construction" language from R101.3 to Scope section | Same as change between 2021 IECC and 2024 IECC | None | None |
| R101.3 Intent | RED1-9-22 | Revises Intent section language, including adding optional supplemental requirements overview, non-mandatory appendices, and code update cycle discussions | Same as change between 2021 IECC and 2024 IECC | None | None |
| R101.4 Compliance | | Renumbered from R101.5 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R101.4.1 Compliance Materials | | Renumbered from R101.5.1 | Same as change between 2021 IECC and 2024 IECC except for Florida, the Florida Building Commission approves the software and other materials instead of the code official | None | None |
| R102.1 Applicability | | Renumbered from R101.4 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R102.1.1 Mixed Residential and Commercial Buildings | | Renumbered from R101.4.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R102.2 Other Laws | | Renumbered from R108.3 | Same as change between 2021 IECC and 2024 IECC except renumbered from R107.3 | None | None |
| R102.3 Application of References | | Renumbered from R108.2 | Same as change between 2021 IECC and 2024 IECC except renumbered from R107.2 | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R102.4 Referenced Codes and Standards | | Renumbered from R108.1 | Same as change between 2021 IECC and 2024 IECC except renumbered from R107.1 | None | None |
| R102.4.1 Conflicts | | Renumbered from R108.1.1 | Same as change between 2021 IECC and 2024 IECC except renumbered from R107.1.1 | None | None |
| R102.4.2 Provisions in Referenced Codes and Standards | | Renumbered from R108.1.2 | Same as change between 2021 IECC and 2024 IECC except renumbered from R107.1.2 | None | None |
| R102.5 Partial Invalidity | RED1-9-22 | Renumbered from R107.1 and name changed from "General" to "Partial invalidity" | Same as change between 2021 IECC and 2024 IECC, except renumber would be from R105.1 | None | None |
| SECTION R103 CODE COMPLIANCE AGENCY | RED1-10-22 | New section providing code compliance enforcement agency, appointment and deputy language | Same as change between 2021 IECC and 2024 IECC | None | None |
| R103.1 Creation of Enforcement Agency | RED1-10-22 | Provides enforcement agency creation language | Same as change between 2021 IECC and 2024 IECC | None | None |
| R103.2 Appointment | RED1-10-22 | Requires that the AHJ be appointed by the chief appointing authority of the jurisdiction | Same as change between 2021 IECC and 2024 IECC | None | None |
| R103.3 Deputies | RED1-10-22 | Provides for the AHJ's authority to appoint a deputy and other employees | Same as change between 2021 IECC and 2024 IECC | None | None |
| SECTION R104 ALTERNATIVE MATERIALS, DESIGN AND METHODS OF CONSTRUCTION AND EQUIPMENT | | Renumbered from R102.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R104.1.1 Above Code Programs | RED1-186-22 | Renumbered from R102.1.1 and changes the thermal envelope requirements from 2009 IECC table-based efficiencies to thermal | Same renumbering as between 2021 IECC and 2024 IECC, but the FBC-EC does not include additional table-based thermal | None because an above code program | None because an above code program |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | conductance (TC) calculation efficiencies | envelope or thermal conductance (TC) calculation efficiency requirements | | |
| SECTION R105 CONSTRUCTION DOCUMENTS | | Renumbered from R103 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.1 General | | Renumbered from R103.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.2 Information on Construction Documents | | Renumbered from R103.2 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.2.1 Building Thermal Envelope Depiction | | Renumbered from R103.2.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.2.2 Solar-ready System | REPI-33-21, RED1-94-22, RED1-11-22 | New section stipulating that where a solar-ready zone is provided, the construction documents indicate dedicated roof area, roof and ground loads, and routing of conduit, prewiring, or plumbing | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.3 Examination of Documents | | Renumbered from R103.3 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.3.1 Approval of Construction Documents | | Renumbered from R103.3.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.3.2 Previous Approvals | | Renumbered from R103.3.2 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.3.3 Phased Approval | | Renumbered from R103.3.3 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.4 Amended Construction Documents | | Renumbered from R103.4 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R105.5 Retention of Construction Documents | | Renumbered from R103.5 | Same as change between 2021 IECC and 2024 IECC | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| SECTION R106 FEES | | Renumbered from R104 | The FBC-EC only includes a reserved Fees section R108 (without any content) | None | None |
| R106.1 Payment of Fees | CEPI-8-21 Part II | Renumbered from R104.1 and minor editing | Would be new section in the FBC-EC | None | None |
| R106.2 Schedule of Permit fees | | Renumbered from R104.2 | Would be new section in the FBC-EC | None | None |
| R106.3 Permit Valuation | CEPI-8-21 Part II | New section requiring applicant for a permit to provide an estimated value of the work at the time of application | Same as change between 2021 IECC and 2024 IECC | None | None or slightly increased cost |
| R106.4 Work commencing before Permit Issuance | | Renumbered from R104.3 | Would be new section in the FBC-EC | None | None |
| R106.5 Related Fees | | Renumbered from R104.4 | Would be new section in the FBC-EC | None | None |
| R106.6 Refunds | | Renumbered from R104.5 | Would be new section in the FBC-EC | None | None |
| SECTION R107 INSPECTIONS | | Renumbered from R105 | Same as change between 2021 IECC and 2024 IECC except renumbered from R104 | None | None |
| R107.2 Required Inspections | | Renumbered from R105.2 | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.2 | None | None |
| R107.2.1 Footing and Foundation Inspection | | Renumbered from R105.2.1 | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.2.1 | None | None |
| R107.2.2 Framing and Air barrier Rough-in Inspection | RED1-12-22, REPI-9-21 | Renumbered from R105.2.2, adds “air barrier” to title, and replaces existing insulation and fenestration inspection text with expanded air barrier inspection text (insulation and fenestration inspection text moved to new Section R107.2.6) | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.2.2 | None or slightly increased stringency | Slightly increased cost |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R107.2.3 Plumbing Rough-in Inspection | REPI-33-21, RED1-14-22 | Renumbered from R105.2.3 and adds inspection requirements for solar-ready zones where they are provided | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.2.3 | None | None or slightly increased cost in applicable solar-ready zone cases |
| R107.2.4 Mechanical Rough-in Inspection | | Renumbered from R105.2.4 | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.2.4 | None | None |
| R107.2.5 Electrical Rough-in Inspection | REPI-33-21 | New section stipulating inspection requirements at electrical rough-in, including for solar-ready zones where they are provided | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency | Slightly increased cost |
| R107.2.6 Insulation and Fenestration Rough-in Inspection | REPI-9-21 | New section stipulating inspection requirements at insulation and fenestration rough-in (moved from Section R107.2.2 with slight rewording) | Same as change between 2021 IECC and 2024 IECC | None | None |
| R107.2.7 Final Inspection | | Renumbered from R105.2.5 | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.2.5 | None | None |
| R107.3 Reinspection | | Renumbered from R105.3 | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.3 | None | None |
| R107.4 Approved Third-party Inspection Agencies | RED1-16-22 | Renumbered from R105.4, adds “third-party” to title, and adds requirement that third-party inspection agencies be approved prior to issuance of the building permit | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.4 | None | None |
| R107.4.1 Authorization of Approved third-Party Inspection Agency | RED1-16-22 | New section requiring approved third-party inspection agency provide all requested information for the code official to determine that the agency meets the applicable requirements, and to authorize its work in the jurisdiction. | Same as change between 2021 IECC and 2024 IECC | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R107.4.1.1 Independence | RED1-16-22 | New section requiring that an approved third-party inspection agency be an independent business identity, perform its duties in accordance with the scope of delegated responsibilities established by the code official, disclose any conflicts of interest, and acknowledge in writing that it is authorized to work only within the scope of delegated responsibilities | Same as change between 2021 IECC and 2024 IECC | None | None |
| R107.4.1.2 Equipment | RED1-16-22 | New section that requires that an approved third-party inspection agency have adequate equipment to perform required inspections and tests and that all testing equipment be calibrated as required | Same as change between 2021 IECC and 2024 IECC | None | None |
| R107.4.1.3 Personnel | RED1-16-22 | New section that requires that personnel assigned by an approved third-party inspection agency to perform inspections and testing be trained or credentialed, and documentation of training or credentials be available upon request | Same as change between 2021 IECC and 2024 IECC | None | None |
| R107.4.1.4 Delegated Authority | RED1-16-22 | New section that stipulates that where approved, a third-party inspection agency has the authority to perform delegated inspections and determine compliance or noncompliance of work | Same as change between 2021 IECC and 2024 IECC | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R107.4.2 Approved Third-party Inspection Agency Reporting | RED1-16-22 | New section that stipulates third-party inspection agencies reporting requirements | Same as change between 2021 IECC and 2024 IECC | None | None |
| R107.5 Inspection Requests | | Renumbered from R105.5 | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.5 | None | None |
| R107.6 Reinspection and testing | | Renumbered from R105.6 | Same as change between 2021 IECC and 2024 IECC except renumbered from R104.6 | None | None |
| SECTION R108 NOTICE OF APPROVAL | | Renumbered from R106 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R108.1 Approval | | Renumbered from R106.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R108.2 Revocation | | Renumbered from R106.2 | Same as change between 2021 IECC and 2024 IECC | None | None |
| SECTION R109 MEANS OF APPEALS | | Renumbered from R110 | Would be new section in the FBC-EC (Florida already has other means of addressing appeals) | None | None |
| R109.1 General | | Renumbered from R110.1 | Would be new section in the FBC-EC (Florida already has other means of addressing appeals) | None | None |
| R109.2 Limitations on Authority | RED1-17-22 | Renumbered from R110.2 and one edit regarding authority to interpret the administration of the code | Would be new section in the FBC-EC (Florida already has other means of addressing appeals) | None | None |
| R109.3 Qualifications | RED1-17-22 | Renumbered from R110.3 and adds qualification clarification | Would be new section in the FBC-EC (Florida already has other means of addressing appeals) | None | None |
| R109.4 Administration | RED1-17-22 | Renumbered from R110.4 and removes “immediate” from action requirement | Would be new section in the FBC-EC (Florida already has other means of addressing appeals) | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| SECTION R110 STOP WORK ORDER | | Renumbered from R109 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R110.1 Authority | | Renumbered from R109.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R110.2 Issuance | | Renumbered from R109.2 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R110.3 Emergencies | | Renumbered from R109.3 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R110.4 Failure to Comply | | Renumbered from R109.4 | Same as change between 2021 IECC and 2024 IECC | None | None |
| **Chapter 2 [RE] Definitions** | | | | | |
| R202 Air-Handling Unit | RED1-285-22 | New definition | The 2023 FBC-EC already has a different but compatible definition for "air-handling unit" | None | None |
| R202 Approved source | RED1-268-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Automatic Shutoff Control | REPI-106-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Balanced Ventilation System | RED1-343-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Biodiesel Blend | RECD1-12-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Common Areas | RED1-360-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Construction Documents | REPI-150-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Continuous Insulation (ci) | RED1-185-22 | Edit changes "building envelope" to "building thermal envelope" | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Continuous Pilot | RED1-283-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Damper | RED1-285-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R202 Demand Response Signal | REPI-90-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Demand Responsive Control | REPI-30-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Distribution System Efficiency (DSE) | REPI-78-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Duct System | RED1-285-22 | Replaces "continuous passageway" based language with new language using newly defined "ductwork" and "space conditioning equipment" terms | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Ductwork | RED1-285-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Emittance | RE2D-3-23 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Enclosed Reflective Airspace | REPI-11-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Energy Rating Index (ERI) | RECPI-11-21, RED1-65-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Existing Building | RED1-264-22 | New definition | 2023 FBC-EC already has a different but compatible definition for "existing building" | None | None |
| R202 F-Factor (Thermal Transmittance) | REPI-26-21 | New definition | None; 2023 FBC-EC already has the same definition for "F-Factor" | None | None |
| R202 Fuel Gas | RECD1-12-22, REPI-155-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Fuel Oil | RECD1-12-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R202 Grade Plane | REPI-33-21, RED1-3-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Heat Exchanger | RED1-285-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| [R202 High-Efficacy Light Sources] | REPI-102-21 Part I | "High-Efficacy Light Sources" term deleted | 2023 FBC-EC does not include this definition | None | None |
| R202 Intermittent Ignition | RED1-283-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Interrupted Ignition | RED1-283-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Knee Wall | REPI-39-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Liquid Fuel | RECD1-12-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Living Space | REPI-33-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Low Slope | RED1-182-22 | New definition | 2023 FBC-EC has similar definition for "low-sloped roof" | None | None |
| R202 Occupiable Space | RED1-285-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 On-demand Pilot | RED1-283-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Plenum | RED1-285-22 | New definition | 2023 FBC-EC already has a different but compatible definition for "plenum" | None | None |
| R202 Proposed Design | RED1-249-22, CEPI-24-21 Part II | Replaces "building" with "dwelling unit" and "total building performance with "simulated building performance" | Same as change between 2021 IECC and 2024 IECC | | |
| R202 Radiant Barrier | REPI-13-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Rated Design | RED1-65-22 | Replaces "building" with "dwelling unit" | 2023 FBC-EC does not include this definition | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R202 Reflective Insulation | REPI-11-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Renewable Energy Certificate (REC) | REPI-158-21 | Clarifies and expands definition | 2023 FBC-EC does not include this definition | None | None |
| R202 Roof Replacement | REPI-150-21 | Revises definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Simulated Building Performance | CEPI-24-21 Part II, RED1-31-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Sleeping Unit | REC2D-8-23 | New definition | 2023 FBC-EC already has a different but compatible definition for “sleeping unit” | None | None |
| R202 Solar-Ready Zone | REPI-33-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Space Conditioning | RED1-285-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Space Conditioning Equipment | RED1-285-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Steep Slope | RED1-182-22 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Substantial Improvement | RED1-263-22, RE2D-8-23 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| R202 Testing Unit Enclosure Area | REC2D-8-23 | Replaces definition for “dwelling unit enclosure area” and adds newly defined “sleeping unit” to wall height measurement stipulation | 2023 FBC-EC does not include definitions for “testing unit enclosure area” or “dwelling unit enclosure area” | None | None |
| R202 Work Area | REPI-144-21 | New definition | Same as change between 2021 IECC and 2024 IECC | None | None |
| **Chapter 3 [RE] General Requirements** | | | | | |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R303.1.1 Building Thermal Envelope Insulation | REPI-11-21, RED1-194-22 | Adds requirements for what must be included on the certification for reflective insulation | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | None or slightly increased cost in applicable cases |
| R303.1.2 Insulation Mark Installation | CEPI-19-21 Part II | Adds insulation mark exception for roof insulation installed above roof deck | Same as change between 2021 IECC and 2024 IECC | None | None |
| R303.1.6 Airspaces | RED1-194-22 | New section stipulates requirements for using the *R*-value of an enclosed reflective airspace or enclosed nonreflective airspace for code compliance | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | None or slightly increased cost in applicable cases |
| R303.2.2 Radiant Barrier | REPI-13-21, RED1-194-22 | New section stipulates standard requirements for radiant barriers | 2023 FBC-EC already includes standard requirements for radiant barriers | None | None |
| **Chapter 4 [RE] Residential Energy Efficiency** | | | | | |
| R401.2 Application<br><br>[R401.2.5 Additional energy efficiency] | REPI-18-21 | As part of larger revision, removes requirement for residential buildings to comply with removed Section R401.2.5, which in the 2021 IECC, provided additional energy efficiency requirements | The 2023 FBC-EC does not include the requirements of removed IECC Section R401.2.5 except for the 95% load option for Performance compliance | To be determined via analysis of combined revisions | Slightly to somewhat increased cost in applicable Prescriptive cases when replacement Section R408 "credits" based Additional Efficiency Requirements are included |
| R401.2.1 Prescriptive compliance option | REPI-18-21 | Adds Section R408 "credits" based Additional Efficiency Requirements for the Prescriptive compliance option | An additional Efficiency Requirements option such as IECC Section R408 is not included in the FBC-EC | To be determined via analysis of combined revisions | Slightly to somewhat increased cost in applicable Prescriptive cases |
| R401.3 Certificate | REPI-18-21, | For the certificate that indicates listed efficiencies, in items 2 and 3 adds "thermal" to "building | 2023 FBC-EC already has a comparable requirement in its | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | RED1-185-22 | envelope", in item 7 adds requirement to indicate Section R408 additional efficiency measures selected, and adds item 8 regarding solar-ready zone | Energy performance level (EPL) display card | | |
| R402.1 General | RED1-196-22, RE2D-10-23 | Revises referenced building thermal envelope compliance sections to clarify R-value vs. new (revised from Total UA) Component performance alternative Prescriptive compliance options | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.1.2 Insulation and fenestration criteria | REPI-26-21 | Adds maximum *F-factor* requirement for applicable assemblies per new Table R402.1.2 limits | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.1.2 | REPI-30-21 | Flips table rows and columns | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.1.2 | RED1-204-22 | Changes "Fenestration *U*-Factor" column label into "Vertical Fenestration *U*-factor" (now row) label | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.1.2 | RED1-204-22 | Separates "Glazed Fenestration SHGC" into "Glazed Vertical Fenestration SHGC" and "Skylight SHGC," and adds new skylight SHGC limits (0.28 in Climate Zones 1 and 2 vs. 0.25 for glazed vertical fenestration in Climate Zones 1 and 2); this maximum skylight limit is lowered from 2021 IECC's (removed) footnote "d" exception for Climate Zones 1-3 which allowed skylight SHGCs up to 0.30 | Equivalent FBC-EC Table R402.1.4 does not include SHGC limits | Slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Table R402.1.2 | RED1-268-22 | Adds "Insulation Entirely Above Roof Deck", "Unheated Slab *F*-factor," and "Heated Slab *F*-factor" assembly types | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency in applicable cases with insulation above roof deck | None or slightly decreased cost in applicable cases with insulation above roof deck |
| Table R402.1.2 | RED1-199-22, REC2D-1-23, REPI-28-21 | Decreases maximum allowed skylight *U*-factors from 0.75 to 0.60 for Climate Zone 1 and from 0.65 to 0.60 for Climate Zone 2 | Same as change between 2021 IECC and 2024 IECC | Slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |
| Table R402.1.2 | REPI-33-21, RED1-199-22 | Increases maximum allowed ceiling *U*-factor for Climate Zone 2 from 0.026 to 0.030 | 2023 FBC-EC already has a maximum ceiling *U*-factor of 0.030 for Climate Zone 2 | Would make the two codes of equal stringency for applicable Prescriptive and Performance compliance cases | None |
| Table R402.1.2 | REPI-28-21 | Removes 2021 IECC footnote "e" which excluded Marine Zone SHGC requirements (for 2024 IECC, included in table) | Equivalent FBC-EC Table R402.1.4 does not include SHGC limits | None | None |
| Table R402.1.2 | | 2024 IECC footnote "d" ("f" in 2021 IECC) reduces maximum *U*-factor in Marine Climate Zone 4 and Climate Zones 5 through 8 for vertical fenestration products in provided cases | Would be new footnote in FBC-EC, but does not apply to Florida Climate Zones | None | None |
| Table R402.1.2 | REPI-26-21 | Adds new footnote "e" that provides slab *F*-Factor details | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.1.3 *R*-value alternative | REPI-26-21 | Adds "*F*-factor" to section, now allowing assemblies with an *R*-value of insulation materials equal to or greater than that specified in Table R402.1.3 to be an alternative to the *U*-factor or *F*-factor in Table R402.1.2 | FBC-EC has different wording, but basically same as change between 2021 IECC and 2024 IECC | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Table R402.1.3 | REPI-30-21 | Flips table rows and columns | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.1.3 | RED1-204-22 | Changes "Fenestration *U*-Factor" column label into "Vertical Fenestration *U*-factor" (now row) label | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.1.3 | | Adds maximum vertical fenestration *U*-factor of 0.50 for Climate Zones 0 and 1 | Same as change between 2021 IECC and 2024 IECC (for Climate Zone 1; FBC-EC does not include Climate Zone 0) | None | None |
| Table R402.1.3 | RED1-204-22, | Separates "Glazed Fenestration SHGC" into "Glazed Vertical Fenestration SHGC" and "Skylight SHGC," and adds new skylight SHGC limits (0.28 in Climate Zones 1 and 2 vs. 0.25 for glazed vertical fenestration in Climate Zones 1 and 2); this maximum skylight limit is lowered from 2021 IECC's (removed) footnote "b" exception for Climate Zones 1-3 which allowed skylight SHGCs up to 0.30 | Same as change between 2021 IECC and 2024 IECC | Slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |
| Table R402.1.3 | RED1-268-22 | Adds "Insulation Entirely Above Roof Deck" assembly type, and breaks "Slab *R*-value & Depth" assembly type into "Unheated Slab *R*-value & Depth," and "Heated Slab *R*-value & Depth" assembly types | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency in applicable cases with insulation above roof deck | None or slightly decreased cost in applicable cases with insulation above roof deck |
| Table R402.1.3 | REPI-28-21, RED1-199-22 | Decreases maximum allowed skylight *U*-factors from 0.75 to 0.60 for Climate Zone 1 and from 0.65 to 0.60 for Climate Zone 2 | Same as change between 2021 IECC and 2024 IECC | Slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Table R402.1.3 | RED1-199-22, REPI-33-21 | Decreases minimum allowed ceiling *R*-value for Climate Zone 2 from 49 to 38 | 2023 FBC-EC already has a minimum ceiling *R*-value of 38 for Climate Zone 2 | Would make the two codes of equal stringency for applicable prescriptive compliance cases | None |
| Table R402.1.3 | | New footnote "c" requires slab insulation to be installed in accordance with Section R402.2.9.1[1], which provides requirements removed from 2021 IECC footnote "d" | Same as change between 2021 IECC and 2024 IECC (FBC-EC footnote "d" has similar language to 2021 IECC footnote "d" | None or slightly increased stringency in applicable cases | None or slightly increased cost in applicable cases |
| Table R402.1.3 | | Moves 2021 IECC footnote "f" regarding basement wall insulation in Warm Humid locations to footnote "d" | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.1.3 | | Moves 2021 IECC footnote "g" regarding frame wall cavity and continuous insulation to footnote "e" | Same as change between 2021 IECC and 2024 IECC (except moves from footnote "h") | None | None |
| Table R402.1.3 | | Moves 2021 IECC footnote "h" regarding mass walls to footnote "f" | Same as change between 2021 IECC and 2024 IECC (except moves from footnote "I" and the FBC-EC does not include reference to mass wall section while both IECC versions do | None | None |
| Table R402.1.3 | RED1-199-22 | Moves 2021 IECC footnote "i" regarding vertical fenestration product *U*-factor for buildings in certain locations to footnote "g", decreases the included Climate Zones from 3 – 8 to Marine 4 and 5 – 8, and reduces the maximum *U*-factor from 0.32 to 0.30 | Would be new footnote in FBC-EC, but does not apply to Florida Climate Zones | None | None |

[1] Appears this section should be "R402.2.10.1" (may be corrected in final version of 2024 IECC).

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Table R402.1.3 | REPI-35-21 | Adds cavity + continuous and continuous only insulation options for floors, and adds footnote "h" to provide clarifications regarding these options | Cavity + continuous and continuous only insulation options for floor insulation would be new for the FBC-EC | None | None |
| R402.1.5 Component performance alternative | REPI-26-21, RED1-186-22 | Changes title from "Total UA alternative" and replaces UA based compliance with thermal conductance (TC) based compliance which combines UA calculation with perimeter * *F*-factor calculation | Same as change between 2021 IECC and 2024 IECC, but exception makes the perimeter * *F*-factor calculation the same value for the table-based and proposed calculations for Climate Zones 0 through 2 | None | None |
| R402.1.6 Rooms containing fuel-burning appliances | RED1-185-22 | Renumbered from R402.4.4 and clarifies "building thermal envelope" term | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.2.1 Ceilings with attics | REC2D-6-23, | Adds exception for Section R402.1.3 requirement of R-38 insulation in the ceiling or attic wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves, and removes a similar exception for when R-60 insulation is required | 2023 FBC-EC already has R-38 exception and does not include a R-60 exception | Would make the two codes of equal stringency for applicable Prescriptive compliance cases | None |
| R402.2.1 Ceilings with attics | RED1-186-22 | Replaces exception reference to "Total UA" alternative with "component performance" alternative for consistency with Section R402.1.5 change | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.2.3 Attic knee wall | REPI-39-21, RED1-212-22 | New section requires that wood attic knee wall assemblies that separate conditioned space from unconditioned attic spaces comply with Table R402.1.3 for wood-framed walls, and steel attic knee wall assemblies comply | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency for Prescriptive and Performance projects in applicable cases | None or slightly decreased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | with Section R402.2.7; also requires that these knee walls have an air barrier between conditioned and unconditioned space | | depending on typical practice | |
| R402.2.3.1 Roof truss framing separating conditioned and unconditioned space | REPI-39-21, RED1-212-22 | New section requires that where wood vertical roof truss framing members are used to separate conditioned space and unconditioned space, they must comply with Table R402.1.3 for wood-framed walls, and steel frame vertical roof truss framing members used to separate conditioned space and unconditioned space must comply with Section R402.2.7 | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency for Prescriptive and Performance projects in applicable cases depending on typical practice | None or slightly decreased cost in applicable cases |
| R402.2.4 Eave baffle | | Renumbered from R402.2.3 | Same as change between 2021 IECC and 2024 IECC except renumbered from R402.2.3 | None | None |
| R402.2.5 Access hatches and doors | | Renumbered from R402.2.4 | Same as change between 2021 IECC and 2024 IECC, except FBC-EC combines with insulation retention requirements, while 2021 and 2024 IECC have separate sub-section for these requirements | None | None |
| R402.2.5 Access hatches and doors | RED1-186-22 | Replaces exception reference to “total UA” alternative with “component performance” alternative for consistency with Section R402.1.5 change | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.2.5.1 Access hatches and door insulation installation and retention | | Renumbered from R402.2.4.1 | FBC-EC combines insulation installation and retention requirements with other access hatch door requirements in R402.2.4 | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R402.2.6 Mass walls | | Renumbered from R402.2.5 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.2.7 Steel-frame ceilings, walls and floors | | Renumbered from R402.2.6 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.2.7 Steel-frame ceilings, walls and floors | RED1-185-22 | Revises section, removing requirement to comply with the insulation *R*-value requirements of Table R402.2.6, keeping the *U*-factor requirements of Table R402.1.2, and revises the calculation of the *U*-factor, now requiring it to be in accordance with AISI S250 with modifications | Same as change between 2021 IECC and 2024 IECC | None | None |
| [Table R402.2.6 Steel-frame Ceiling, Wall and Floor Insulation R-values] | IRCEPI-1-21, REPI-40-21 | Table removed as part of Section R402.2.7 revision | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.2.8 Floors | | Renumbered from R402.2.7 | FBC-EC already has same numbering as 2024 IECC | None | None |
| R402.2.8 Floors | RECD1-11-22 | Revises and clarifies floor insulation installation section | Similar to change between 2021 IECC and 2024 IECC | Slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |
| R402.2.9 Basement walls | | Renumbered from R402.2.8 | FBC-EC already has same numbering as 2024 IECC | None | None |
| R402.2.9 Basement walls | RED1-285-22 | Minor rewording | 2021 and 2024 IECC have more unconditioned basement exception requirements than 2023 FBC-EC | None from changes | None from changes |
| R402.2.9.1 Basement wall insulation installation | | Renumbered from R402.2.8 | FBC-EC already has same numbering as 2024 IECC | None | None |
| R402.2.9.1 Basement wall | RED1-217-22 | Adds phrase “or in accordance with the proposed design or the rated design, as applicable” | Same as change between 2021 IECC and 2024 IECC | None or slight stringency impact in applicable cases | None or slight cost impact in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| insulation installation | | | | | |
| R402.2.10 Slab-on-grade floors | | Renumbered from R402.2.9 | FBC-EC already has same numbering as 2024 IECC | None | None |
| R402.2.10 Slab-on-grade floors | REPI-26-21 | Changes floor surface criterion from "less than 12 inches (305 mm) below grade" to "within 24 inches (610 mm) above or below grade" | Same as change between 2021 IECC and 2024 IECC | None or slight stringency impact in applicable cases | None or slight cost impact in applicable cases |
| R402.2.10.1 Slab-on-grade floor insulation installation | | Renumbered from R402.2.9.1 | FBC-EC already has same numbering as 2024 IECC | None | None |
| R402.2.10.1 Slab-on-grade floor insulation installation | RED1-250-22 | Makes section requirements only applicable to Prescriptive compliance (Performance and ERI requirements in separate new section); with floor penetration exceptions, requires full-slab insulation to be continuous under the entire area of the floor; and adds heated slab perimeter requirements | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | None or slightly increased cost in applicable cases |
| R402.2.10.2 Alternative slab-on-grade insulation configurations | RED1-250-22, REC2D-1-23 | New section stipulating that for Performance or ERI compliance, slab-on-grade insulation be installed in accordance with the proposed design or rated design | Same as change between 2021 IECC and 2024 IECC | None or slight stringency impact in applicable cases | None or slight cost impact in applicable cases |
| R402.2.11 Crawl space walls | | Renumbered from R402.2.10 | FBC-EC already has same numbering as 2024 IECC | None | None |
| R402.2.11 Crawl space walls | RED1-250-22 | Changes the crawl space wall insulation requirement from being in accordance with Table R402.1.3 to Section R402.2.11.1 or new 402.2.11.2 | Same as change between 2021 IECC and 2024 IECC | None or slight stringency impact in applicable cases | None or slight cost impact in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R402.2.11.1 Crawl space wall insulation installations | RED1-211-22 | General rewording including changes to insulation location requirements | Same as change between 2021 IECC and 2024 IECC | None or slight stringency impact in applicable cases | None or slight cost impact in applicable cases |
| R402.2.11.2 Alternative crawl space wall insulation configurations | RED1-250-22, REC2D-1-23 | New section stipulating that for Performance or ERI compliance, crawl space wall insulation be installed in accordance with the proposed design or rated design | Same as change between 2021 IECC and 2024 IECC | None or slight stringency impact in applicable cases | None or slight cost impact in applicable cases |
| R402.2.12 Masonry veneer | | Renumbered from R402.2.11 | FBC-EC already has same numbering as 2024 IECC | None | None |
| R402.2.13 Sunroom and heated garage insulation | | Renumbered from R402.2.12 | FBC-EC already has same numbering as 2024 IECC; FBC-EC does not include heated garage provisions | None | None |
| R402.3 Radiant barriers | RED1-194-22, REPI-42-21 | New section requiring that where installed, radiant barriers be installed in accordance with ASTM C1743 | Same as change between 2021 IECC and 2024 IECC, except the FBC-EC already includes this requirement for Performance compliance | None or slight stringency impact in applicable cases | None or slight cost impact in applicable cases |
| R402.4 Fenestration | | Renumbered from R402.3 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.4.1 *U*-factor | | Renumbered from R402.3.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.4.2 Glazed fenestration SHGC | | Renumbered from R402.3.2 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.4.3 Glazed fenestration exemption | RED1-186-22 | Renumbered from R402.3.3 and changes reference to “Total UA” to new “component alternative” compliance option | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.4.4 Opaque door exemption | RED1-186-22 | Renumbered from R402.3.4 and changes reference to “Total UA” to new “component alternative” compliance option | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.4.5 Sunroom and heated garage fenestration | | Renumbered from R402.3.5 | Same as change between 2021 IECC and 2024 IECC; FBC-EC | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | | does not include heated garage provisions | | |
| R402.5 Air leakage | | Renumbered from R402.4 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.5.1 Building thermal envelope | | Renumbered from R402.4.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.5.1.1 Installation | | Renumbered from R402.4.1.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation | | Renumbered from Table R402.4.1.1 | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Air Barrier, Air Sealing Criteria header | RED1-32-22, RED1-235-22 | Added “Air Sealing” to “Air Barrier Criteria” header | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Ceiling/attic | REPI-47-21 | Adds requirement that air barriers installed in a dropped ceiling or soffit separate it from unconditioned space; removes requirement that the air barrier be aligned with the insulation and any gaps be sealed; and requires that seals for access openings, drop down stairs or knee wall doors to unconditioned attic spaces be sealed with gasketing materials that allow for repeated entrance over time | Same as change between 2021 IECC and 2024 IECC | None or slight stringency impact in applicable cases | None or slight cost impact in applicable cases |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation | REPI-47-21 | Adds insulation installation requirement that access hatches and doors be installed and insulated in accordance with | Same as change between 2021 IECC and 2024 IECC | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Installation: Ceiling/attic | | Section R402.2.5, and eave baffles be installed in accordance with Section R402.2.4 | | | |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Walls | RED1-185-22 | Adds “building” to Insulation Installation Criteria section’s “exterior thermal envelope” term as clarification. | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Knee wall | RED1-235-22 | New component entry provides Air Barrier, Air Sealing Criteria and Insulation Installation Criteria requirements for knee walls | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency in applicable cases depending on typical practice | None or slight cost impact in applicable cases |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Windows, skylights and doors | RECD1-3-22 | Clarifies Air Barrier, Air Sealing Criteria requirements and adds that sealing must be in accordance with fenestration manufacturer's instructions | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Windows, skylights and doors | RECD1-3-22 | Adds Insulation Installation Criteria section entry that insulation is not required in the rough opening gap except as required by the fenestration manufacturer's instructions | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency depending on typical practice | None or slightly decreased cost in applicable cases |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Rim joists | REPI-55-21 | Removes “exterior” from Air Barrier, Air Sealing Criteria section requirement: “Rim joists shall include an exterior air barrier.” | FBC-EC already has same requirement as 2024 IECC | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and | RECD1-11-22, | Replaces existing Air Barrier, Air Sealing Criteria section requirement that an air barrier be | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | None or slight cost impact in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Insulation Installation: Floors, including cantilevered floors and floors above garages | RED1-230-22 | installed at any exposed edge of insulation with requirement that floor framing members that are part of the building thermal envelope be air sealed to maintain a continuous air barrier; also adds requirement that air permeable floor cavity insulation be enclosed | | depending on typical practice | |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Floors, including cantilevered floors and floors above garages | | Replaces existing floor framing cavity Insulation Installation Criteria requirements with requirement that floor insulation be installed in accordance with Section R402.2.8 | Same as change between 2021 IECC and 2024 IECC | None or slight stringency impact in applicable cases depending on typical practice | None or slight cost impact in applicable cases |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Basement, crawl space and slab foundations | | As clarification, puts comma between “basement” and “crawl space” in “Basement, crawl space and slab foundations” component title | FBC-EC does not include basements in this component title; instead has component title “Crawl space walls” | None (from change) | None (from change) |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Showers, tubs and fireplaces adjacent to the building thermal envelope | REPI-52-21 | Changes component title from “Shower/tub on exterior wall” to “Showers, tubs and fireplaces adjacent to the building thermal envelope” | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | None or slightly increased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Showers, tubs and fireplaces adjacent to the building thermal envelope | REPI-52-21, RED1-233-22 | Revises Air Barrier, Air Sealing Criteria requirement wording and adds fireplaces | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | None or slightly increased cost in applicable cases |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Showers, tubs and fireplaces adjacent to the building thermal envelope | REPI-52-21, RED1-233-22 | Revises Insulation Installation Criteria requirement wording slightly and adds fireplaces | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | None or slightly increased cost in applicable cases |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Electrical, communication and other equipment boxes, housings and enclosures | REPI-53-21 | Changes component title from "Electrical/phone box on Exterior walls" to "Electrical, Communication and other equipment boxes, housings and enclosures" | FBC-EC already has 2024 IECC language | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Electrical, communication and other equipment boxes, housings and | REPI-53-21 | Revises Air Barrier, Air Sealing Criteria requirement air-sealing wording, and adds concealed opening sealing requirement | FBC-EC already has this 2024 IECC language, and adds "the continuity of the air barrier shall be maintained around boxes, housings and enclosures that penetrate the air barrier" | None or slightly decreased stringency in applicable cases | None or slightly decreased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| enclosures | | | | | |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Electrical, communication and other equipment boxes, housings and enclosures | REPI-53-21 | Adds new Insulation Installation Criteria that boxes, housing and enclosures must be buried in or surrounded by insulation | FBC-EC already has this 2024 IECC language | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: HVAC register boots | REPI-50-21 | Removes “that penetrate building thermal envelope” from HVAC boot Air Barrier, Air Sealing Criteria requirement | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: HVAC register boots | RED1-32-22 | Adds new Insulation Installation Criteria that HVAC register boots located within a building thermal envelope assembly be buried in or surrounded by insulation | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R402.5.1.1 Air Barrier, Air Sealing and Insulation Installation: Common walls or double walls separating attached single-family dwellings or townhouses | RED1-229-22 | New component entry provides Air Barrier, Air Sealing Criteria and Insulation Installation Criteria requirements for common walls or double walls separating attached single-family dwellings or townhouses, including fire-resistance-rating related | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases depending on typical practice | None or slightly increased cost in applicable cases depending on typical practice |
| Table R402.5.1.1 Air Barrier, Air Sealing and | REPI-55-21 | Removes “air barrier” from footnote to clarify that “air barrier” is not intended to be | FBC-EC does not include this exception footnote | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Insulation Installation: footnote "b" | | included in this exception, leaving: "Insulation full enclosure is not required in unconditioned/ventilated attic spaces and at rim joists" | | | |
| R402.5.1.2 Air leakage testing | RED1-222-22 | Renumbered from R402.4.1.2, and renamed from "Testing" | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.5.1.2 Air leakage testing | REC2D-8-23 | Revises air leakage testing requirement to specify that where applicable, each dwelling unit or (newly defined) sleeping unit in the building must be tested | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.5.1.2 Air leakage testing | RED1-222-22 | Air leakage rate limits are moved from this section to Section R402.5.1.3 and revised | Same as change between 2021 IECC and 2024 IECC, except FBC-EC limits air leakage rate to 7 ACH50 in Florida Climate Zones while the 2024 IECC limits leakage to 4 ACH50 in Florida Climate Zones (exceptions for each code) | Increased stringency in applicable cases | Increased cost in applicable cases |
| R402.5.1.2 Air leakage testing | REPI-43-21 | Adds ASTM E3158 testing standard | Same as change between 2021 IECC and 2024 IECC | Not known | None (optional) |
| R402.5.1.2 Air leakage testing | REPI-57-21 | Adds "differential" to clarify that air leakage testing is conducted and reported at a pressure differential of 0.2 inch water gauge (50 Pascals) | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.5.1.2 Air leakage testing | | Moves heated, attached private garages and heated, detached private garages exception from before "During testing" items to after these items | FBC-EC does not have a heated garage testing exception | None or slightly decreased stringency in applicable cases | None or slightly decreased cost in applicable cases |
| R402.5.1.2 Air leakage testing | REPI-61-21 | Adds dwelling and sleeping unit sampling testing exception | FBC-EC does not have a unit sampling option | None or slightly decreased stringency in applicable cases | None or slightly decreased cost in applicable cases |
| R402.5.1.2 Air leakage testing | RED1-222-22 | Removes individual dwelling units that are 1,500 square feet | FBC-EC does not include this exception | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | (139.4 m2) or smaller language from testing exception | | | |
| R402.5.1.2 Air leakage testing | RED1-222-22 | Removes mechanical ventilation requirement from this section (but similar language remains in Section R403.6 | FBC-EC does not include this language | None | None |
| R402.5.1.2.1 Unit sampling | REPI-61-21 | New building air leakage testing sampling provision for buildings with eight or more dwelling units or sleeping units | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency in applicable cases depending on typical practice | Somewhat decreased cost in applicable cases |
| R402.5.1.3 Maximum air leakage rate | RED1-224-22 Part I &II | Renumbered section from R402.4.1.3 and renamed from "Leakage rate" | FBC-EC does not include this section | None | None |
| R402.5.1.3 Maximum air leakage rate | RED1-224-22 Part I & II | Air leakage rate limits are moved from R402.1.2.1 to this section and revised downward, with exceptions for attached dwelling or sleeping units or when located in an R-2 occupancy, and for buildings with 1,500 square feet (139.4 $m^2$) or less of conditioned floor area | FBC-EC does not include this section; as noted above, FBC-EC limits air leakage rate to 7 ACH50 in Florida Climate Zones while the 2024 IECC limits leakage to 4 ACH50 in Florida Climate Zones | Increased stringency | Increased cost in applicable cases |
| R402.5.2 Fireplaces | | Renumbered from R402.4.2 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.5.3 Fenestration air leakage | | Renumbered from R402.4.3 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.5.4 Recessed lighting | | Renumbered from R402.4.5 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R402.5.5 Air-sealed and electrical and communication outlet boxes | REPI-66-21 | Renumbered from R402.4.6 and renamed from "Electrical and communication outlet boxes (air-sealed boxes)" | Except FBC-EC title is "Air-sealed electrical and communication boxes" | None | None |
| R402.5.5 Air-sealed and electrical and | REPI-66-21 | Revises wording to clarify section | Makes section language very similar to FBC-EC language | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| communication outlet boxes | | | | | |
| R402.6 Maximum fenestration *U*-factor and SHGC | | Renumbered from R402.5 | FBC-EC does not have this section, but includes (higher) fenestration SHGC limits and an overhang depth alternative for Performance compliance | None (from section number change) | None (from section number change) |
| R403.1.2 Heat pump supplementary heat | REPI-73-21 | Revises heat pump supplementary heat section language to include fuel gas and liquid fuel heating systems, and further stipulates when supplemental heat can be used | Corresponding FBC-EC section is R403.1.3; FBC-EC has similar language to 2024 IECC but does not include supplementary fuel gas or liquid fuel heating systems | None | None |
| R403.2 Hot water boiler temperature reset | RECD1-12-22 | Revises language including changing "oil" to "liquid fuel" | FBC-EC uses different language but includes a similar requirement | None | None |
| R403.3 Duct systems | | Renamed from "Ducts" | Same as change between 2021 IECC and 2024 IECC | None | None |
| R403.3 Duct systems | RED1-285-22 | 2021 IECC includes a duct testing exception in Section R403.3.5 for ventilation system ducts that are not integrated with ducts serving heating or cooling systems; the 2024 IECC modifies this exception language slightly and moves it up to Section R403.3 so it now applies to duct system testing and other duct system installation sections from R403.3.3 through R403.3.9 | FBC-EC does not state it, but may interpret it the same | None | None |
| R403.3.1 Duct system design | RED1-285-22 | New section stipulating duct system design and sizing standards based on number of dwelling or sleeping units | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases depending on typical practice | Slightly increased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R403.3.2 Building cavities | | Renumbered from R403.3.7 and term "ducts" changed to "ductwork" | Same as change between 2021 IECC and 2024 IECC, except renumbered from R403.3.5 | None | None |
| R403.3.3 Ductwork located outside conditioned space | | Renumbered from R403.3.1, renamed from "Ducts located outside conditioned space", and term "ducts" changed to "ductwork" | FBC-EC does not include this section | None (from changes) | None (from changes) |
| R403.3.4 Duct systems located in conditioned space | RED1-285-22 | Renumbered from R403.3.2, renamed from "Ducts located in conditioned space", and term "ductwork" changed to "duct systems" | FBC-EC does not include this section | None (from changes) | None (from changes) |
| R403.3.4 Duct systems located in conditioned space | RED1-285-22 | Section language revised for clarification purposes; also adds unvented attics with vapor diffusion ports to buried ductwork option | FBC-EC does not include this section | None from changes, but adopting this IECC section would slightly decrease stringency in applicable cases | None (optional) |
| R403.3.5 Ductwork buried within ceiling insulation | RED1-285-22 | Renumbered from R403.3.3, renamed from "Ducts buried within ceiling insulation", term "duct" changed to "ductwork", and minor additional text revisions | FBC-EC does not include this section | None (from changes; optional) | None (from changes; optional) |
| R403.3.5 Ductwork buried within ceiling insulation | REPI-82-21 | Adds items #4 and 4.1 which add an unvented attic (with vapor diffusion port) buried R8 supply duct option for Climate Zones 0A, 1A, 2A and 3A | FBC-EC does not include this section | None (optional) | None (optional) |
| R403.3.5.1 Effective *R*-value of deeply buried ducts. Where complying | | Renumbered from R403.3.3.1, term "duct" changed to "ductwork", and minor additional text revisions | FBC-EC does not include this section | None (optional) | None |
| R403.3.6 Sealing | RED1-285-22 | Renumbered from R403.3.4, term "ducts" changed to "ductwork", | Corresponding FBC-EC section is 403.3.2; FBC-EC has similar general intent as 2024 IECC, | None (from changes) | None (from changes) |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | and minor additional text revisions | and in addition references Florida statutes that provide duct tester qualifications | | |
| R403.3.6.1 Sealed air-handling unit | | Renumbered from R403.3.4.1, renamed from "Sealed air handler", and "air handlers" changed to "air-handling units" in text | Same as change between 2021 IECC and 2024 IECC, except renumbered from R403.3.2.1 | None | None |
| R403.3.7 Duct system testing | REPI-86-21 | Renumbered from R403.3.5, renamed from "Duct testing", and revised, removing "rough-in test" and "postconstruction test" based organization | Corresponding FBC-EC section is R403.3.5; FBC-EC has similar language to 2021 IECC outside of testing exceptions and overall content still somewhat similar to 2024 IECC, again outside of testing exceptions | None (from changes) | None (from changes) |
| R403.3.7 Duct system testing | RED1-285-22 | Adds duct testing exception for 10 feet or less of total ductwork when the duct system is entirely in conditioned space and the ductwork does not include building cavity or gypsum board plenums | FBC-EC does not require duct testing for Performance compliance with default leakage or for Prescriptive compliance when ducts are within the building thermal envelope | None | None |
| R403.3.7 Duct system testing | RED1-285-22 | Adds duct testing exception to section, allowing testing where space conditioning equipment is not installed-- in these cases, requires total supply and return duct leakage to be less than or equal to 3.0 cfm/sq. ft.; 2021 IECC had same allowance, but applied to Prescriptive only; now also applies to Performance | Same as change between 2021 IECC and 2024 IECC | None (optional) | None (optional) |
| R403.3.7 Duct system testing | REPI-85-21 | Adds exception to section which, in conjunction with new Section R403.3.9, allows duct testing sampling for buildings with eight | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency in applicable cases | Slightly decreased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | or more dwelling units or sleeping units | | | |
| R403.3.8 Duct system leakage | RED1-285-22 | Renumbered from R403.3.6, renamed from "Duct leakage", and revised, moving from "rough-in test" and "postconstruction test" duct leakage limits organization to limits shown in new Table R403.3.8, based on floor area served by the duct system, equipment and duct configuration, and number of ducted returns | Same as change between 2021 IECC and 2024 IECC (for changes) | Slightly increased or decreased stringency for Prescriptive compliance depending on area served, configuration, and number of ducted returns; somewhat increased stringency for Performance compliance | Slightly increased cost in applicable cases |
| R403.3.9 Unit sampling | REPI-85-21 | Adds duct testing unit sampling section which, in conjunction with new Section R403.3.7, allows duct testing sampling for buildings with eight or more dwelling units or sleeping units | Same as change between 2021 IECC and 2024 IECC | None or slightly decreased stringency in applicable cases | Slightly decreased cost in applicable cases |
| R403.4.1 Protection of piping insulation | REPI-87-21 | Minor edit and new requirement that piping protection be removable no less than 6 feet (1828 mm) from the equipment for maintenance | Same as change between 2021 IECC and 2024 IECC | None | None |
| R403.5.1.1 Circulation systems | RED1-310-22 | Reorganizes language slightly, adds gravity circulation system prohibition, and adds requirement that where a cold water supply pipe is used as the return pipe, a temperature sensor connected to the controls be located on the hot water supply not more than two feet (305 mm) from the connection to the cold water supply pipe | Same as change between 2021 IECC and 2024 IECC, except FBC-EC already includes gravity circulation system prohibition | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R403.5.1.1.1 Demand recirculation water systems | RED1-310-22 | Removes "where installed" and adds specifications on how controls must limit pump operation | Same as change between 2021 IECC and 2024 IECC except FBC-EC section is R403.5.2 | Slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |
| R403.5.2 Hot water pipe insulation<br><br>Table R403.5.2 Minimum Pipe Insulation Thickness | REPI-89-21 | Changes hot water pipe insulation requirements for stipulated conditions from R3 to 1.0 inch insulation thickness based on fluid operating temperature range and usage as provided in new Table R403.5.2; also removes piping serving more than one dwelling unit condition and provides exception for cold water returns in demand recirculation water systems; section now also applies to performance compliance | Same as change between 2021 IECC and 2024 IECC except FBC-EC section is R403.5.3 | Slightly increased stringency in applicable cases (now including Performance compliance) | Slightly increased cost in applicable cases (now including Performance compliance) |
| R403.6 Mechanical ventilation | RED1-318-22 | Adds "dwelling units" to the structures that must comply with this section, further changes the structures that must comply with this section by changing reference from Section R402.5.1 "Building thermal envelope" to R402.5.1.1 "Installation" and adds "mechanical" to phrase "shall be provided with mechanical ventilation…" | Same as change between 2021 IECC and 2024 IECC except FBC-EC has somewhat different wording for section | None | None |
| R403.6.1 Heat or energy recovery ventilation | REPI-94-21 | Adds Climate Zone 6 to those included in this section's heat or energy recovery ventilation requirements and revises text to include sensible recovery efficiency (SRE) term and stipulates how SRE must be determined | FBC-EC does not include this section | None (Climate Zones do not apply to Florida) | None (Climate Zones do not apply to Florida) |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R403.6.2 Whole-dwelling mechanical ventilation system fan efficacy<br><br>Table R403.6.2 Whole-Dwelling Mechanical Ventilation System Fan Efficacy | REPI-95-21, REC2D-10-23 | Fixes typos, provides minor clarifications, and references and provides revised mechanical ventilation system fan efficacy Table R403.6.2 that includes test procedure for each system type and provides additional minimum efficacies for "Balanced ventilation system without heat or energy recovery" and "other exhaust fans" with airflow rate above 200 cfm; also provides footnote with means of determining efficacy for balanced ventilation systems, HRVs, and ERVs | Same as change between 2021 IECC and 2024 IECC | None | None |
| R403.6.3 Testing | | Changes mechanical ventilation system testing stipulation from manufacturer's instructions or code listed options to instead be in accordance with ANSI/ RESNET/ICC 380; revises existing testing exception and adds two exceptions | FBC-EC does not include this section | None for changes or if section is adopted | None for changes; slightly increased cost in applicable cases if section is adopted |
| R403.6.4 Unit sampling | RED1-365-22 | Adds mechanical ventilation testing unit sampling section which, in conjunction with new Section R403.3.7, allows mechanical ventilation system testing sampling for buildings with eight or more dwelling units or sleeping units | FBC-EC does not include the ventilation system testing section to which this sampling section applies | None | Slightly increased cost in applicable cases |
| R403.6.5 Intermittent exhaust control for bathrooms and toilet rooms | RECD1-1-22 | New section requires exhaust system controls for bathrooms and toilet rooms when designed for intermittent operation | Same as change between 2021 IECC and 2024 IECC | Slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R403.7.1 Electric-resistance space heating | REPI-99-21, RED1-325-22 | New section requires detached one- and two-family dwellings and townhouses in Climate Zones 4 through 8 using electric-resistance space heating to limit the total electric resistance heating capacity to not more than 2.0 kW or requires installation of a heat pump in the largest space that is not used as a bedroom | Same as change between 2021 IECC and 2024 IECC | None (Climate Zones do not apply to Florida) | None (Climate Zones do not apply to Florida) |
| R403.8 Systems serving multiple dwelling units | RED1-329-22 | Adds exception to Systems serving multiple dwelling units section for systems complying with new Section R403.9, which addresses mechanical systems located outside of the building thermal envelope | Same as change between 2021 IECC and 2024 IECC | None | None |
| R403.9 Mechanical systems located outside of the building thermal envelope | RED1-329-22 | New section provides requirements for mechanical systems located outside of the building thermal envelope | Same as change between 2021 IECC and 2024 IECC | None | None |
| R403.9.1 Heating outside a building | RED1-329-22 | New section provides type and control requirements for systems that provide heat outside of a building | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |
| R403.9.2 Snow melt and ice system controls | RED1-329-22 | Renumbered from R403.9 | Same as change between 2021 IECC and 2024 IECC | None (for change) | None (for change) |
| R403.9.3 Roof and gutter deicing controls | CEPI-82-21 Part I | New section provides control requirements for roof and gutter deicing systems | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |
| R403.9.4 Freeze protection system controls | RED1-329-22 | New section provides control requirements for freeze protection systems | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R403.10.2 Time switches | RED1-299-22 | Replaces pool pump control exception's use of "solar" with "on-site renewable energy" | FBC-EC already has an exception for pumps that are powered by "onsite renewable generation" | None | None |
| R403.13 Gas fireplaces | RED1-286-22 | With an exception for gas-fired combustion safety devices, new section requires gas fireplace systems to not be equipped with a continuous pilot, and instead be equipped with an on-demand pilot, intermittent ignition or interrupted ignition | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases depending on typical practice | Slightly increased cost in applicable cases |
| R403.13.1 Gas fireplace efficiency | RED1-286-22 | New section provides vented gas fireplace heater fireplace efficiency (FE) rating and listing and labeling requirements | Same as change between 2021 IECC and 2024 IECC | None or slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |
| SECTION R404 ELECTRICAL POWER, LIGHTING AND RENEWABLE ENERGY SYSTEMS | REPI-158-21 | Adds "renewable energy to section title | Same as change between 2021 IECC and 2024 IECC | None | None |
| R404.1 Lighting equipment | REPI-102-21 Part II | Replaces high efficacy lighting sources language with actual efficacy minimums and adds three exceptions | FBC-EC already has similar language as 2024 IECC, but with only one exception | None or slightly decreased stringency in applicable cases | None or slightly decreased cost in applicable cases |
| R404.1.1 Exterior lighting | REPI-105-21 | Revisions include moving connected exterior lighting compliance requirement from Section C405.5 to new Sections R404.1.2 through R404.1.4, specifying applicability is for Group R-2, R-3 and R-4 residential buildings, and adding exception for Group R-3 | FBC-EC does not include residential exterior lighting requirements | None to somewhat increased stringency combined with new Sections R404.1.2 and R404.1.3 | None or slightly increased cost combined with new Sections R404.1.2 and R404.1.3 |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | buildings that do not contain more than two dwelling units | | | |
| R404.1.2 Exterior lighting power requirements | REPI-105-21, RED1-110-22 | New section adds applicable exterior lighting power requirements from Section C405.5 (as part of moving requirements from commercial provisions) | FBC-EC does not include residential exterior lighting requirements | None to somewhat increased stringency | None or slightly increased cost |
| R404.1.3 Exterior lighting power allowance<br><br>Table R404.1 Lighting Power Allowances for Building Exteriors | REPI-105-21 | New section adds applicable exterior lighting power allowance from Section C405.5 including new Table R404.1 used to calculate allowed lighting power for various area types (as part of moving requirements from commercial provisions) | FBC-EC does not include residential exterior lighting requirements | None to somewhat increased stringency | None or slightly increased cost |
| R404.1.4 Additional exterior lighting power | REPI-105-21 | New section provides for additional exterior lighting power allowances for building facades | FBC-EC does not include residential exterior lighting requirements | None or slightly increased stringency in applicable cases | None or slightly increased cost in applicable cases |
| R404.1.5 Gas lighting | RED1-286-22 | Renumbered from R404.1.2, renamed from "Fuel gas lighting equipment", revises existing language and adds that gas-fired lighting appliances are not be equipped with a continuous pilot, and instead be equipped with an on-demand pilot, intermittent ignition or interrupted ignition | Same as change between 2021 IECC and 2024 IECC, except renumbered and renamed from "R404.1.1 Lighting equipment" | None or slightly increased stringency in applicable cases depending on typical practice | None or slightly increased cost in applicable cases |
| R404.2 Interior lighting controls | REPI-106-21 | Revises section language to refer to new Sections R404.2.1 and R404.2.2 and removes three exception locations, leaving an exception for safety or security lighting only | FBC-EC does not include residential interior lighting controls | Slightly increased stringency combined with new Sections R404.2.1 and R404.2.2 | Slightly increased cost combined with new Sections R404.2.1 and R404.2.2 |
| R404.2.1 Habitable spaces | REPI-106-21 | New section requires all permanently installed luminaires in habitable spaces to be | FBC-EC does not include residential interior lighting controls | Slightly increased stringency | Slightly increased cost |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | controlled with a manual dimmer or automatic shutoff control; also must incorporate a manual control to allow occupants to turn the lights on or off | | | |
| R404.2.2 Specific locations | REPI-106-21 | New section requires all permanently installed luminaires in garages, unfinished basements, laundry rooms and utility rooms to be controlled by an automatic shutoff control; also must incorporate a manual control to allow occupants to turn the lights on or off | FBC-EC does not include residential interior lighting controls | Slightly increased stringency | Slightly increased cost |
| R404.3 Exterior lighting controls<br><br>R404.3.1 Controls for individual dwelling units | RED1-112-22 | Revises Section R404.3 to instead of providing exterior lighting controls requirements in this section which included an exception for lighting serving multiple dwelling units, moves the existing controls requirements to new Section R404.3.1 which specifies applicability to individual dwelling units | FBC-EC does not include residential exterior lighting controls | Slightly increased stringency in applicable Prescriptive cases | Slightly increased cost in applicable Prescriptive cases |
| R404.4 Renewable energy certificate (REC) documentation | REPI-158-21 | New section requires that where renewable energy generation is used to comply with the code, documentation be provided demonstrating that where renewable energy certificates (RECs) or energy attributable certificates (EACs) are associated with that portion of renewable energy used to comply with this code, the RECs or EACs will be retained, or retired, on behalf of the property owner | Same as change between 2021 IECC and 2024 IECC | Slight reduction in overall community energy use for applicable projects as these RECs won't be used for offsetting others | Slight increase to cost of PV system for applicable projects as utility or others cannot offset costs by buying RECs |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| SECTION R405 SIMULATED BUILDING PERFORMANCE | | Changes section title from "Total Simulated Building Performance" | FBC-EC already uses new IECC title | None | None |
| R405.1 Scope | RED1-249-22 | Revision clarifies that simulated building performance analysis is limited to dwelling units, and Spaces other than dwelling units in Group R-2, R-3 or R-4 buildings are to comply with Sections R402 through R404 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R405.2 Simulated building performance compliance | | Renamed from "Performance-based compliance" | FBC-EC uses "Mandatory requirements" as title for this section | None | None |
| Table R405.2 Requirements for Simulated Building Performance | CEPI-24-21 Part II, RED1-56-22, RED1-224-22 Part I, REPI-86-21 | Revises Table R405.2 requirements for simulated building performance entries: removes Section R402.1.5 Additional Energy Efficiency, requires all of Section R403.5 Service hot water systems instead of previously just R403.5.1 Heated water circulation and temperature maintenance systems and R403.5.3 Drain water heat recovery units subsection; adds R402.1.6 Rooms containing fuel-burning appliances (for Climate Zone 3-8), new R402.2.3 Attic knee wall, R402.2.10 Slab-on grade floors, R402.5.1.3 Maximum air leakage rate, R402.5.2 Fireplaces, R402.5.3 Fenestration air leakage, R402.5.4 Recessed lighting, R402.5.5 Air-sealed electrical and | FBC-EC does not use IECC's table-based requirements format for Performance compliance and does not include a number of the IECC requirements | None to slightly increased stringency as applicable (limited due to trade-offs) | None to somewhat increased cost as applicable |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | communication outlet boxes, R403.2 Hot water boiler temperature reset, R403.13 Gas fireplaces; also changes crawl space requirement from R402.2.11.1 to R402.2.11; also removes Section R403.3 Duct systems exceptions, also edits for Section number and name changes consistency | | | |
| R405.2 Simulated building performance compliance | RED1-27-22 | Changes item #2 requirement to meet 2009 IECC thermal envelope efficiencies to new thermal conductance (TC) based requirement; also reduces the maximum weighted fenestration SHGC for Performance compliance in Climate Zones 0 through 3 to 0.30 | FBC-EC Performance compliance has several thermal envelope minimum efficiency requirements but does not include either the 2009 IECC thermal envelope efficiency requirement or new thermal conductance (TC) based requirement | To be assessed via analysis of combined revisions but limited due to trade-offs | None to slightly increased cost |
| R405.2 Simulated building performance compliance | RED1-27-22, REPI-33-21 | Changes item #3 requirement that the annual energy cost be less than or equal to that of the standard reference design to separate requirements for dwelling units that use fuel-burning appliances for space heating, water heating, or both vs. for all other dwelling units, with annual energy cost limits being 80 percent and 85 percent of that of the standard reference design, respectively; also, for each dwelling unit with greater than 5,000 square feet (465 $m^2$) of living space above grade plane, the annual energy cost of the dwelling unit must be reduced by | Applicable FBC-EC Section R405.3 "Performance-based compliance" requires the proposed design be shown to have annual total normalized Modified Loads that are less than or equal to 95 percent of the annual total loads of the standard reference design | Increased stringency, to be assessed via analysis | Increased cost |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | an additional 5 percent; also adds source energy multipliers for natural gas, propane, fuel oil, and imported liquefied natural gas, and revises source energy multiplier for electricity for energy use based on source energy exception; and adds new exception for energy use based on site energy | | | |
| R405.3 Compliance documentation | RECD1-8-22 | Renamed from "Documentation" and revises language, separating requirements into application and certificate of occupancy compliance reports (requirement moved up from Section R405.5.4) | Same as for IECC except renumbered from R405.4 | None | None |
| [R405.3.1 Compliance software tools] | RECD1-8-22 | Removes section, replacing it with revised language in Section R405.4.1 | Renumbered from R405.4, and FBC-EC currently requires Florida Building Commission approval-- 2024 IECC added new Section R405.5.2 requirement that software vendors test software in accordance with ANSI/ASHRAE 140 Class II, Tier 1 test procedures and publish results | Slightly increased stringency | None |
| R405.4 Calculation procedure<br><br>R405.4.1 General<br><br>R405.4.2 Residence specifications<br><br>R405.4.3 Input values | RECD1-8-22 | Revises, reorganizes, and clarifies existing sections, including stipulating revised R405.5 software tools approval section which includes new Section R405.5.2 requirement that software vendors test software in accordance with ANSI/ASHRAE 140 Class II, Tier 1 test procedures and publish results; | Renumbered from R405.5, R405.5.1, R405.5.2, and R405.6.3, and as noted above, FBC-EC currently requires Florida Building Commission approval-- 2024 IECC added new Section R405.5.2 requirement that software vendors test software in accordance with | Slightly increased stringency | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | also moves Input values section from R405.5.3 to R405.4.3 | ANSI/ASHRAE 140 Class II, Tier 1 test procedures and publish results | | |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Above-grade walls | RED1-252-22 | Revises Standard Reference Design solar absorptance specification to solar reflectance without changing stringency | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Roofs | RED1-252-22 | Revises Standard Reference Design solar absorptance specification to solar reflectance without changing stringency | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Foundations | REC2D-4-23 | Revises Standard Reference Design foundation specification, removing “area” and adding “foundation wall or slab perimeter length” | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Foundations | RED1-208-22 | Adds that foundation wall Standard Reference Design *U*-factor and slab *F*-factor be as specified in Table R402.1.2 | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Air leakage rate | RED1-251-22 | Changes building component section title from “Air exchange rate” and revises Climate Zone 0 – 2 Standard Reference Design air leakage rate from 5.0 ACH50 to 4.0 ACH50 (applies to detached one-family dwellings > 1,500 sq. ft.); also changes Proposed Design entry from “The measured | FBC-EC currently uses 7.0 ACH50 for the Standard Reference Design | Increased stringency for applicable cases | Increased cost for applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | air exchange rate" to "The measured air leakage rate" | | | |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Air leakage rate | RED1-251-22 | Adds separate Standard Reference Design air leakage rate of 0.27 cfm/$ft^2$ of the testing unit enclosure area at a pressure of 0.2 inch water gauge (50 Pa) for detached one-family dwellings that are 1,500 $ft^2$ or smaller and attached dwelling units or sleeping units | FBC-EC currently uses 7.0 ACH50 for the Standard Reference Design for all projects | Increased stringency for applicable cases | Increased cost for applicable cases |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Air leakage rate | RED1-251-22 | Removes "Where required by the code official, testing shall be conducted by an approved party" from footnote "a", but per the proponent, just due to redundancy, as this language is still included in Section R402.5.1.2 Air leakage testing | FBC-EC requires duct testing be done by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i) or an approved third party | None or slightly decreased stringency depending on typical practice | None or slightly decreased cost depending on typical practice |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Mechanical ventilation rate | | Breaks out Table R405.4.2(1) 2021 IECC "Mechanical ventilation" section into "Mechanical ventilation rate" and "Mechanical ventilation fan energy" sections | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Mechanical ventilation rate | RED1-251-22 | Replaces Standard Reference Design annual vent fan energy use equation with specification that the mechanical ventilation rate be in addition to the air leakage rate and the same as in the proposed design, but not greater than a provided new equation based limit | Same as change between 2021 IECC and 2024 IECC | Slightly increased stringency in applicable cases | Slightly increased cost in applicable cases |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Mechanical ventilation rate | RED1-251-22 | Changes Proposed Design specification from "As proposed" to the measured mechanical ventilation rate (calculated according to specified ASHRAE Handbook of Fundamentals sections), and specifies it be in addition to the measured air leakage rate | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Mechanical ventilation fan energy | RED1-251-22 | New section clarifies that the Standard Reference Design mechanical ventilation system type be the same as in the proposed design; also adds that heat recovery or energy recovery be modeled for mechanical ventilation where required by R403.6.1 [Climate Zones 6-8] and not be modeled where not required by R403.6.1 [includes Florida]; also modifies annual vent fan energy use equation; also specifies that the Proposed Design fan energy use is "As proposed" | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Internal mass | RED1-185-22 | Adds "thermal" to "building envelope" for Proposed Design specification | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: | REPI-33-21 | For Standard Reference Design, removes "for other than electric heating without a heat pump: as Proposed" and "where the proposed design utilizes electric heating without a heat pump, the | FBC-EC Standard Reference Design specifies a heat pump if the proposed heating system is electric (2024 IECC does as well via new footnote "j"); otherwise "as proposed", | None; but issue with 2024 IECC capacity being adequate to allow correct simulation results; also if adopted in | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Heating systems and footnote "j" | | standard reference design shall be an air source heat pump meeting the requirements of Section C403 of the IECC—Commercial Provisions"<br><br>Also removes "Capacity: sized in accordance with Section R403.7" and replaces with "Fuel Type/Capacity: Same as proposed design"<br><br>Adds "Product class: Same as proposed design" | capacity in accordance with Section R403.7, and fuel type same as proposed | Florida, suggest including content of 2024 IECC footnote "j" in main section text to avoid confusion | |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Heating systems and footnote "j" | REPI-33-21 | 2021 IECC's Standard Reference Design specifies "for other than electric heating without a heat pump: [efficiency] as Proposed" and "where the proposed design utilizes electric heating without a heat pump, the standard reference design shall be an air source heat pump meeting the requirements of Section C403 of the IECC—Commercial Provisions" vs. 2024 IECC specification that efficiency comply with 10 CFR §430.32 for heat pump, fuel gas and liquid fuel furnace, and fuel gas and liquid fuel boiler (making the 2024 IECC more like the FBC-EC, which allows equipment trade-offs)<br><br>Also new footnote "j" stipulates a split system heat pump complying | FBC-EC Standard Reference Design specifies efficiency in accordance with prevailing federal minimum standards and specifies heat pump if proposed heating system is electric, so the FBC-EC and 2024 IECC would treat heating system efficiencies the same way | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | with 10 CFR §430.32 (2021) for the Standard Reference Design if the Proposed Design has electric resistance heat | | | |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: footnote "k" | | 2024 IECC footnote "k" adds that for heating systems, cooling systems, or water heating systems not included in Table R405.4.2(1), the Standard Reference Design be the same as proposed design | For space heating FBC-EC Standard Reference Design specifies a heat pump if proposed heating system is electric; otherwise as proposed | None | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Cooling systems | RED1-252-22, REPI-33-21 | Changes Standard Reference Design fuel type from "as proposed" to electric, capacity from "sized in accordance with Section R403.7" to "Same as proposed design", and adds Standard Reference Design specification that efficiencies comply with 10 CFR §430.32 (making the 2024 IECC more like the FBC-EC, which allows equipment trade-offs) | FBC-EC Standard Reference Design has same Standard Reference Design as 2024 IECC except sizes in accordance with Section R403.7 | None; but issue with 2024 IECC capacity being adequate to allow correct simulation results | None |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Service water Heating | RED1-252-22, REPI-33-21 | Replaces "As proposed" specification for Standard Reference Design with:<br>- Fuel Type: Same as proposed design<br>- Rated Storage Volume: Same as proposed design<br>- Draw Pattern: Same as proposed design<br>- Efficiencies: Uniform Energy Factor complying with 10 CFR §430.32 (making the 2024 IECC more like the FBC-EC, | FBC-EC Standard Reference Design and Proposed Design hot water fuel type and efficiency are same as 2024 IECC<br><br>FBC-EC Standard Reference Design and Proposed Design hot water use is determined in accordance with ANSI/RESNET/ICC 301 while 2024 IECC Standard Reference Design and Proposed Design | Unknown | Unknown |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | which allows equipment trade-offs)<br>- Tank Temperature: 120°F (48.9°C)<br><br>For Proposed Design, adds "As proposed" specification for Fuel Type, Rated Storage Volume, Draw Pattern, Efficiencies, and Tank Temperature | hot water use continues to use 2021 IECC equations<br><br>Per ANSI/RESNET/ICC 301, FBC-EC tank temperature for both Standard Reference Design and Proposed Design is 125°F | | |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: footnote "g" | REPI-33-21 | Removes Standard Reference and Proposed Design language from this footnote regarding nonstorage type water heaters (now addressed in the table itself)<br><br>2024 IECC footnote "g" also revises assumptions for the Standard Reference and Proposed Designs for proposed designs without a water heater, but draft language unclear<br><br>Footnote "g" changes also add Standard Reference Design specifications for proposed designs with heat pump water heaters; 40 gallon storage volume specification would mean that the Standard Reference Design uses a much less efficient water heater in cases where the Proposed Design's volume is over 55 gallons | For nonstorage type water heaters the FBC-EC footnote "g" specifies a 40-gallon storage-type water heater with the prevailing federal minimum energy factor for the same fuel as the predominant heating fuel type<br><br>For proposed designs without a proposed water heater, FBC-EC footnote "g" specifies a 40-gallon storage-type water heater with the prevailing federal minimum efficiency for the same fuel as the predominant heating fuel type for both the proposed design and standard reference design | Unknown; language and intent unclear; as written, the 2024 IECC heat pump water heater specifications in footnote "g" would decrease efficiency in applicable situations | 2024 IECC changes as provide in draft version make impacts unclear |
| Table R405.4.2(1) Specifications for the Standard | RED1-285-22 | IECC continues to require R8 ducts for the Standard Reference Design for most cases where | FBC-EC specifies R6 for Standard Reference Design duct insulation and "as | None (for changes) | None (for changes) |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Reference and Proposed Designs: Thermal distribution systems and footnote "m" | | ducts are outside of conditioned space, and specifies duct insulation as being "as proposed" for the Proposed Design, with a 2024 IECC footnote "m" added for the Proposed Design specifying that sections of ductwork installed in accordance with Section R403.3.5.1 (deeply buried) are assumed to have an effective duct insulation R-value of R-25. | proposed" for the Proposed Design | | |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Thermal distribution systems | RED1-252-22, REPI-33-21 | 2024 IECC moved from applying a distribution system efficiency (DSE) of 0.88 to the Standard Reference Design heating and cooling system efficiencies for non-tested ducted systems and specifying 4 cfm per 100 sq. ft. for tested duct systems, to specifying 4 cfm per 100 sq. ft. of conditioned floor area for duct systems serving > 1,000 sq. ft. and 40 cfm of leakage to outside for duct systems serving ≤ 1,000 sq. ft. of conditioned floor area<br><br>2024 IECC also moved from specifying the Standard Reference Design duct location as being same as the proposed design to location based on foundation type and number of stories | FBC-EC currently specifies a DSE of 0.88 for the Standard Reference Design and as tested for the Proposed Design if tested, or if not tested, modeled as a $Q_{nout}$ of 0.080 for ducted systems<br><br>FBC-EC also specifies the Standard Reference Design duct and air handler location as being entirely within the building thermal envelope | Unknown; possibly slightly increased stringency | Unknown; possibly slightly increased cost |
| Table R405.4.2(1) Specifications for the Standard Reference and | RED1-285-22 | 2024 IECC Proposed Design duct location "as proposed" is same as 2021 IECC Proposed Design duct location, but adds footnote "l" | FBC-EC also specifies "as proposed for the duct location, but without the 2024 IECC footnote "l" text | Slightly less stringent | Slightly decreased cost |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Proposed Designs: Thermal distribution systems and footnote "l" | | which states that only sections of ductwork that are installed in accordance with Section R403.3.4, Items 1 and 2 are assumed to be located completely inside conditioned space; all other sections of ductwork are not assumed to be located completely inside conditioned space | | | |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Thermal distribution systems | REPI-86-21 | 2024 IECC Proposed Design thermal distribution system efficiency was changed from "as tested" for tested duct systems to the measured total duct system leakage rate being entered as the duct system leakage to outside rate, with exceptions allowing outside leakage to instead be entered where leakage is tested in accordance with ANSI/RESNET/ICC 380 or ASTM E1554, or where total duct system leakage is measured without space conditioning equipment installed, entry is 4 cfm per 100 sq. ft. of conditioned floor area | FBC-EC currently specifies "as tested" for the Proposed Design efficiency if tested, or if not tested, modeled as a $Qn_{out}$ of 0.080 for ducted systems | Decreased stringency in applicable cases | Decreased stringency in applicable cases |
| Table R405.4.2(1) Specifications for the Standard Reference and Proposed Designs: Thermal distribution systems<br><br>Table R405.4.2(2) Default Distribution System Efficiencies | | Changed the Standard Reference Design distribution system efficiency (DSE) for ductless systems from 1.0 to 0.88, and made the DSE for the Proposed Design for ductless systems as specified in Table R405.4.2(2), with changes to the table | FBC-EC specifies a DSE of 0.88 for the Standard Reference Design for all duct systems and Table R405.5.2(2) DSE values for Proposed Design ductless systems; the 2024 IECC changes to the Standard Reference Design ductless system DSE and Proposed Design Table R405.4.2(2) | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| for Proposed Designs | | | changes make the two codes the same for these systems | | |
| Table R405.4.2(2) Default Distribution System Efficiencies for Proposed Designs: footnote "a" | RED1-285-22 | Modifies footnote "a" which clarifies that default values in the table are for untested distribution systems, which must still "comply with Section R403", instead of 2021 IECC: must still "meet minimum requirements for duct system insulation" | Same as change between 2021 IECC and 2024 IECC | Possibly slightly increased stringency for applicable cases depending on interpretation | Possibly slightly increased cost for applicable cases depending on interpretation |
| Table R405.4.2(2) Default Distribution System Efficiencies for Proposed Designs: footnote "c" | REPI-86-21 | Revises footnote "c", removing "including the air handler unit" from: "Entire system in conditioned space shall means that no component of the distribution system, including the air-handler unit, is located outside of the conditioned space" | Same as change between 2021 IECC and 2024 IECC | None | None |
| Table R405.4.2(2) Default Distribution System Efficiencies for Proposed Designs: footnote "d" | RED1-285-22 | Replaces "manufacturer's air-handler enclosure" with "space conditioning equipment" | Same as change between 2021 IECC and 2024 IECC | None | None |
| R405.4.3 Input values | | Renumbered from R405.5.3 | Same as change between 2021 IECC and 2024 IECC, except renumbered from R405.6.3 | None | None |
| R405.5 Calculation software tools<br><br>[R405.5.2 Specific approval] | RECD1-8-22 | Rewords section, incorporating "permitted to be approved" language from deleted Section R405.5.2 | Same as change between 2021 IECC and 2024 IECC, except section number is R405.6 | None | None |
| R405.5.1 Minimum capabilities | RECD1-8-22 | Revises and updates section language including adding "approved software tools" | Same as change between 2021 IECC and 2024 IECC, except section number is R405.6.1 | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R405.5.2 Testing required by software vendors | RECD1-8-22 | As also noted above in Section R405.4 discussion, new section requires that prior to approval, software tools be tested by the software vendor in accordance with ANSI/ASHRAE 140 Class II, Tier 1 test procedures | FBC-EC currently requires Florida Building Commission approval | Slightly increased stringency | None |
| R405.5.3 Algorithms not tested | RECD1-8-22 | New section specifies that algorithms not tested in accordance with Section R405.5.2 be permitted in accordance with ANSI/RESNET/ICC 301 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R405.5.4 Compliance reports | RECD1-8-22 | Renumbered from R405.3.2, title changed from "Compliance report", removes compliance report language which was moved to Section R405.3, and adds "approved" – "Approved software tools shall generate…" | Similar to changes between 2021 IECC and 2024 IECC, except section number is R405.4.2 | None | None |
| R405.5.4.1 Compliance report for permit application | | Renumbered from R405.3.2.1, and minor language revisions | FBC-EC has similar Section R405.4.2.1, but with several existing differences between it and the 2021 and 2024 IECC | None (from changes) | None (from changes) |
| R405.5.4.2 Compliance report for certificate of occupancy | | Renumbered from R405.3.2.2, and minor language revisions | FBC-EC has similar Section R405.4.2.2, but with several existing differences between it and the 2021 and 2024 IECC | None (from changes) | None (from changes) |
| R406.1 Scope | RED1-65-22 | Revision clarifies Energy Rating Index analysis is limited to dwelling units, and Spaces other than dwelling units in Group R-2, R-3 or R-4 buildings are to comply with Sections R402 through R404 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R406.2 ERI compliance | RED1-65-22 | Several revisions including adding that the "as-built dwelling | Most similar FBC-EC section is R406.4 ERI-based compliance which requires the ERI be | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | unit" also meet the listed requirements | determined in accordance with ANSI/RESNET/ICC 301, including Addendum A-2019 | | |
| Table R406.2 Requirements for Energy Rating Index | RED1-56-22, RED1 RED1-185-22-65-22, RED1-224-22 Part I, RED1-286-22, REPI-120-21 | Revises Table R406.2 requirements for simulated building performance entries: removes Section R402.1.5 Additional Energy Efficiency, requires all of Section R403.5 Service hot water systems instead of previously just R403.5.1 Heated water circulation and temperature maintenance systems and R403.5.3 Drain water heat recovery units subsection; adds R402.1.6 Rooms containing fuel-burning appliances (for Climate Zone 3-8), R402.2.10 Slab-on grade floors, R402.5.1.3 Maximum air leakage rate, R402.5.2 Fireplaces, R402.5.3 Fenestration air leakage, R402.5.4 Recessed lighting, R402.5.5 Air-sealed electrical and communication outlet boxes, R406.3 Building thermal envelope, R403.2 Hot water boiler temperature reset, R403.13 Gas fireplaces; also changes crawl space requirement from R402.2.11.1 to R402.2.11; also removes Section R403.3 Duct systems exceptions, also edits for Section number and name changes consistency | FBC-EC does not use IECC's table-based requirements format for ERI compliance and does not include a number of the IECC requirements | None to slightly increased stringency as applicable, but limited due to trade-offs | None to somewhat increased cost as applicable |
| R406.3 Building thermal envelope | RED1-208-22, | Revises R406.3 and removes R406.3.1 and R406.3.2, changing | FBC-EC Performance compliance has several thermal | None to slightly increased stringency | None to slightly increased cost |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| [R406.3.1 On-site renewables are not included]<br><br>[R406.3.2 On-site renewables are included] | REPI-33-21<br>REPI-126-21 | from an on-site renewables vs. no on-site renewables based thermal envelope requirements to new thermal conductance (TC) based requirement; also reduces the maximum weighted fenestration SHGC for Performance compliance in Climate Zones 0 through 3 to 0.30 | envelope minimum efficiency requirements but does not include either the 2021 IECC's UA based or 2018 IECC based thermal envelope efficiency requirement or new 2024 IECC thermal conductance (TC) based requirement | (limited due to trade-offs) | |
| R406.4 Energy Rating Index | REPI-126-21 | Revises section, adding that "the mechanical ventilation rates used for the purpose of determining the ERI shall not be construed to establish minimum ventilation requirements for compliance with this code" and removing "except for buildings covered by the International Residential Code, the ERI reference design ventilation rate shall be in accordance with Equation 4-2" (also removing Equation 4-2); also removes limit on energy use reduction from on-site renewable energy | FBC-EC Energy Rating Index compliance does not reference mechanical ventilation specifically and does not limit energy use reduction from on-site renewable energy | None | None |
| R406.5 ERI-based compliance<br><br>Table R406.5 Maximum Energy Rating Index | RED1-65-22, REPI-126-21 | Makes several minor edits and breaks out maximum ERI by whether onsite renewables are installed or not, providing new maximum ERI values for projects that use onsite renewable power, and reducing the maximum ERI values slightly for projects that do not use on-site renewable power<br><br>Also provides two new exceptions, one of which, where | Similar to change between 2021 IECC and 2024 IECC | Increased stringency (FBC-EC has substantially higher maximum ERI than either 2021 or 2024 IECC) | Increased cost (FBC-EC has substantially higher maximum ERI than either 2021 or 2024 IECC) |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | approved by the code official, permits an Average Dwelling Unit Energy Rating Index calculated in accordance with ANSI/RESNET/ICC 301 to be used for buildings with 20 or more dwelling units | | | |
| R406.7 Documentation<br><br>R406.7.1 Compliance software tools<br><br>R406.7.2 Compliance report<br><br>R406.7.2.1 Proposed compliance report for permit application. Compliance<br><br>R406.7.2.2 Confirmed compliance report for a certificate of occupancy<br><br>R406.7.3 Renewable energy certificate (REC) documentation | RED1-65-22 | General changes to the ERI Documentation section and its subsections include clarification edits and section updates<br><br>R406.7.1 Compliance software tools section changes include a new requirement for software vendors to publish documentation that the software has been validated using the Class II, Tier 1 test procedure in ANSI/ASHRAE 140<br><br>R406.7.3 Renewable energy certificate (REC) documentation section changes "on-site renewable energy" to "renewable energy power production", and removes its previous two documentation options, instead requiring documentation compliance with new Section R404.4 | FBC-EC has same general ERI documentation requirements structure as the 2021 and 2024 IECC, but with a number of differences; the 2024 IECC's new requirement to document validation of software tools using ANSI/ASHRAE 140 the most notable change | Slightly increased stringency | None |
| R407.2 Tropical climate region | RE2D-32-23, | For compliance item #6, "low slope" is added to "the exterior low slope roof surface" | FBC-EC does not include a Tropical climate region section | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| Table R407.2 | RE2D-31-23 | compliance requirement, and instead of referencing compliance options in Table C402.3, adds Table R407.2 which provides the compliance options | | | |
| SECTION R408 ADDITIONAL EFFICIENCY PACKAGE REQUIREMENTS | | Changes section title from Additional Efficiency Package Options | FBC-EC does not include an Additional Efficiency Package Requirements section | None | None |
| R408.1 Scope | RED1-73-22 | Scope is modified to reflect additional efficiency requirement changes | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| R408.2 Additional energy efficiency credit requirements<br><br>Table R408.2 Credits for Additional Energy Efficiency | REPI-18-21, RED1-73-22 | Changes section title from Additional efficiency package options and details revised additional energy efficiency requirements which are specified in new Table R408.2 | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| R408.2.1 Enhanced building thermal envelope options<br><br>R408.2.1.1 Enhanced building thermal envelope performance<br><br>R408.2.1.2 Improved fenestration | RE2D-37-23 | Changes section title from Enhanced envelope performance option, revises section, and adds four new subsections that provide specifications for enhanced building thermal envelope options, including enhanced building thermal envelope performance, improved fenestration, roof solar reflectance index, and reduced air leakage | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R408.2.1.3 Roof solar reflectance index<br><br>R408.2.1.4 Reduced air leakage | | | | | |
| R408.2.2 More efficient HVAC equipment performance options<br><br>R408.2.2.1 More efficient HVAC equipment for Climate Zone 4 | RED1-351-22, RE2D-66-23 | Revises section and provides revised and expanded listing of more efficient HVAC options applicable to all Climate Zones, and also by grouped Climate Zones, and specifically for Climate Zone 4 | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| R408.2.3 Reduced energy use in service water-heating options<br><br>R408.2.3.1 Compact hot water distribution system option<br><br>Table R408.2.3.1 Internal Volume of Various Water Distribution Tubing<br><br>R408.2.3.1.1 Water volume determination | RE2D-37-23, RED1-73-22, RED1-313-22 | Deletes existing language and hot water system efficiency options, and replaces with expanded table of options; also provides specifications for a compact hot water distribution system option | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| R408.2.4 More efficient thermal | RE2D-37-23 | Changes section title from More efficient duct thermal distribution system option, revises existing | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for | Increased Prescriptive compliance cost for |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| distribution system options | | options, and provides new ductwork located outside conditioned space option | | Section R408 requirements, to be assessed further via analysis | additional Section R408 efficiency requirements |
| R408.2.5 Improved air sealing and efficient ventilation system options | RED1-343-22 | Revises section, providing expanded list of improved air sealing and efficient ventilation system options, plus revised minimum performance requirements for measures requiring either an ERV or HRV | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| R408.2.6 Energy efficient appliances<br><br>Table R408.2.6 Minimum Efficiency Requirements: Appliances | RE2D-44-23, RED1-360-22 | New additional energy efficiency credit compliance option provides table of efficient appliance options and related requirements | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| R408.2.7 Renewable energy | REPI-18-21 | New additional energy efficiency credit compliance option specifies on-site renewable energy production and renewable energy certificate (REC) documentation requirements | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| R408.2.8 Demand response<br><br>R408.2.8.1 Single-stage HVAC system controls<br><br>R408.2.8.2 Variable-capacity and two-stage | REPI-33-21 | New additional energy efficiency credit compliance option specifies thermostat demand responsive control requirements, including those for single-stage HVAC systems and variable-capacity and two-stage HVAC system | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| HVAC system controls | | | | | |
| R408.2.9 Opaque walls | REPI-33-21 | New additional energy efficiency credit compliance option specifies that for buildings in Climate Zones 4 and 5, the maximum *U*-factor of 0.060 is permitted for wood-framed walls for compliance with Table R402.1.2 where complying with one or more of four provided options | FBC-EC does not include an Additional Efficiency Package Requirements section, and this option would not apply in Florida Climate Zones 1 and 2 | None | None |
| R408.2.10 Whole-home lighting control | RED1-166-22, RE2D-40-23 | New additional energy efficiency credit compliance option specifies lighting controls capable of turning off all permanently installed interior lighting; includes two exceptions | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| R408.2.11 Higher efficacy lighting | RED1-263-22 | New additional energy efficiency credit compliance option specifies requirements for higher efficacy hardwired lighting; includes two exceptions | FBC-EC does not include an Additional Efficiency Package Requirements section | Increased Prescriptive stringency for Section R408 requirements, to be assessed further via analysis | Increased Prescriptive compliance cost for additional Section R408 efficiency requirements |
| **Chapter 5 [RE] Existing Buildings** | | | | | |
| R501.2 Compliance<br><br>[R501.4 Compliance] | RED1-264-22 | Moves additional non-energy code compliance requirements from Section R501.4 which has same title to this section | Same as change between 2021 IECC and 2024 IECC<br><br>Corresponding FBC-EC sections are R501.1.1 Additions, alterations, or repairs: General and R501.4 Compliance | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R501.4 New and replacement materials | | Renumbered from R501.5 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R501.5 Historic buildings | | Renumbered from R501.6 | Same as change between 2021 IECC and 2024 IECC | None | None |
| R501.6 Change in space conditioning | REPI-143-21 | New section (largely moved from 2021 IECC Section R502.2) requires that any unconditioned or low-energy space that is altered to become conditioned space be brought into full compliance with Section R502 (Additions), with Section R405 exception | FBC-EC already has this requirement in Section R503.2 (requires "full compliance with this code" and includes same Section R405 exception) | None | None |
| R502.1 General | REPI-143-21 | Revises (Additions) General section, with removed language largely provided or implied elsewhere in Chapter 5 | Similar to change between 2021 IECC and 2024 IECC | None | None |
| [R502.2 Change in space conditioning] | REPI-143-21 | Removed and largely rewritten in Section R501.6 | FBC-EC already has this requirement in Section R503.2 (requires "full compliance with this code" and includes same Section R405 exception) | None | None |
| R502.2 Prescriptive compliance | REPI-144-21 | Renumbered from R502.3 and adds new Section R502.2.5 (Additional energy efficiency credit requirements for additions) to listing of sections with which additions must comply | FBC-EC does not include additional energy efficiency credit requirements for additions as has been added to the 2024 IECC | Somewhat increased Prescriptive stringency | Somewhat increased Prescriptive cost |
| R502.2.1 Building thermal envelope | RED1-185-22 | Renumbered from R502.3.1, and "building envelope" changed to "building thermal envelope" in title and text | Similar to change between 2021 IECC and 2024 IECC, except renumbered from R502.1.1.1 | None | None |
| R502.2.2 Heating and cooling systems | RED1-285-22 | Renumbered from R502.3.2, "ducts" changed to "ductwork", and clarification added that testing is not required for the exception | Similar to change between 2021 IECC and 2024 IECC, except renumbered from R502.1.1.2, and FBC-EC | None or slightly decreased Prescriptive stringency | None or slightly decreased Prescriptive cost |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | | testing exception limited to ducts less than 40 linear feet | | |
| R502.2.3 Service hot water systems | | Renumbered from R502.3.3 | Same as change between 2021 IECC and 2024 IECC except renumbered from R502.1.1.3 | None | None |
| R502.2.4 Lighting | | Renumbered from R502.3.4 | Same as change between 2021 IECC and 2024 IECC except renumbered from R502.1.1.4 | None | None |
| R502.2.5 Additional energy efficiency credit requirements for additions | REPI-144-21, RED1-263-22 | New section requires additions to, with three exceptions (including for Performance and ERI compliance), achieve not less than five additional energy efficiency credits | FBC-EC does not include additional energy efficiency credit requirements for additions as has been added to the 2024 IECC | Somewhat increased Prescriptive stringency | Somewhat increased Prescriptive cost |
| R503.1.1 Building thermal envelope<br><br>R503.1.1.1 Fenestration alterations<br><br>R503.1.1.2 Roof, ceiling and attic alterations<br><br>R503.1.1.3 Above-grade wall alterations<br><br>R503.1.1.4 Floor alterations<br><br>R503.1.1.5 Below-grade wall alterations | REPI-150-21, RED1-273-22, RED1-268-22 | Revises Building thermal envelope section and adds five new subsections to provide more detailed requirements for building thermal envelope alterations; adds requirement for new building thermal envelope assemblies that are part of an alteration to comply with Section R402; also revises exceptions<br><br>For fenestration, Section R503.1.1.1 is renamed from Replacement fenestration and revised to add a requirements for new fenestration area added to an existing building to comply with Section R402.4<br><br>New Section R503.1.1.2 requires roof, ceiling, and attic alteration insulation to comply with Section R402.1, with approved alternative | Same as change between 2021 IECC and 2024 IECC | From none, to based on proponent's cost statement, somewhat increased stringency for some alterations | From none, to based on proponent's cost statement, somewhat increased cost for some alterations |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R503.1.1.6 Air barrier | | design allowance for certain listed alterations where conditions prevent compliance with R402.1<br><br>New Section R503.1.1.3 specifies requirements for above-grade wall alterations, with separate requirements for exposed wall cavities, added exterior wall coverings, or for new interior finishes or exterior wall coverings<br><br>New Section R503.1.1.4 provides requirements for when floor cavities or overhangs are exposed<br><br>New Section R503.1.1.5 provides requirements for where an unconditioned below-grade space is changed to conditioned space, and for alterations to building thermal envelope walls of conditioned below-grade space<br><br>New Section R503.1.1.6 provides air barrier requirements for altered building envelope assemblies | | | |
| R503.1.2 Heating and cooling systems<br><br>R503.1.2.1 Ductwork<br><br>R503.1.2.2 System sizing | REPI-145-21, RED1-285-22 | Revises Heating and cooling systems alterations section and adds four new subsections to provide more detailed requirements for new and existing heating and cooling systems and ductwork that are part of an alteration | Same as change between 2021 IECC and 2024 IECC | From slightly decreased stringency, to based on proponent's cost statement, somewhat increased stringency for some alterations | From slightly decreased stringency, to based on proponent's cost statement, somewhat increased cost for some alterations |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| R503.1.2.3 Duct system leakage<br><br>R503.1.2.4 Controls | | New Section R503.1.2.1 provides requirements for HVAC ductwork newly installed as part of an alteration<br><br>New Section R503.1.2.2 provides sizing requirements for new heating and cooling equipment that is part of an alteration<br><br>For certain listed duct system alterations, new Section R503.1.2.3 requires duct system testing and total leakage limit<br><br>New Section R503.1.2.4 provides controls requirements for new heating and cooling equipment that is part of an alteration | | | |
| R503.1.5 Additional efficiency credit requirements for substantial improvements | RED1-263-22 | New section requires that with three exceptions (including for Performance and ERI compliance), substantial achieve not less than three additional energy efficiency credits | FBC-EC does not include additional energy efficiency credit requirements for additions as has been added to the 2024 IECC | Somewhat increased Prescriptive stringency | Somewhat increased Prescriptive cost |
| R505.1 General | RED1-264-22, CEPI-24-21 Part II | Changes “code” to “chapter” to clarify section to state that any space that is converted to a dwelling unit or portion thereof from another use or occupancy must comply with this chapter (instead of “code”); also in exception, changes “simulated performance option” to “simulated building performance option” | Same as change between 2021 IECC and 2024 IECC except renumbered from R502.1.1.3 | None | None |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| **Appendixes** | | | | | |
| Appendix RC Zero Net Energy Residential Building Provisions | RECPI-11-21 | Extensively revises appendix which provides requirements for zero energy residential buildings based on Energy Rating Index; revisions include changes to appendix title, new definitions section, revised calculations, and decreased maximum Energy Rating Index values not including renewable energy | FBC-EC does not include a Zero Net Energy Residential Building Provisions appendix | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |
| Appendix RD Electric Energy Storage Provisions | REPI-33-21 | New appendix provides electric energy storage readiness provision requirements, with applicability for new construction with solar-ready measures or on-site PV system requirements | Same as change between 2021 IECC and 2024 IECC | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |
| Appendix RE Electric Vehicle Charging Infrastructure | | New appendix provides electric vehicle charging infrastructure requirements for adopting jurisdictions | Same as change between 2021 IECC and 2024 IECC | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |
| Resource RRA All-Electric Residential Buildings | REPI-155-21, IRCEAPP-01-24, | New resource provides code compliance pathways for residential buildings intended to result in all-electric buildings (not permit combustion equipment in buildings), with application for adopting jurisdictions or individual projects | Same as change between 2021 IECC and 2024 IECC | None (related information that is not part of the code) | None (related information that is not part of the code) |
| Appendix RF Alternative Building Thermal Envelope Insulation *R*-value Options | RED1-261-22, REPI-165-21 | New appendix provides expanded *R*-value options for compliance with Section R402.1.2 *U*-factor criteria and supplements the selection of insulation conditions | Same as change between 2021 IECC and 2024 IECC | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | | addressed in the Table R402.1.3 *R*-value approach | | | |
| Appendix RG 2024 IECC Stretch Code | RED1-27-22 | New appendix provides requirements to achieve lower residential building energy consumption than adoption of the residential code provisions would otherwise provide | Same as change between 2021 IECC and 2024 IECC | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |
| Appendix RH Operational Carbon Rating and Energy Reporting | RED1-28-22 | New appendix provides means to evaluate the greenhouse gas performance of a building according to ANSI/RESNET/ICC 301 | Same as change between 2021 IECC and 2024 IECC | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |
| Appendix RI On-site Renewable Energy | RED1-91-22 | New appendix provides requirements for prescriptive solar PV where required at the time of construction | Same as change between 2021 IECC and 2024 IECC (FBC-EC has Appendix RB Solar-Ready Provisions—Detached One- and Two- Family Dwellings, Multiple Single-Family Dwellings (Townhouses), but with significant differences between it and the new IECC On-site Renewable Energy appendix) | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |
| Appendix RJ Demand Responsive Controls | REPI-90-21, RED1-315-22, REAPP-01-24 | New appendix provides requirements for demand responsive controls integration for water heaters | Same as change between 2021 IECC and 2024 IECC | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |
| Appendix RK Electric-ready Residential Building Provisions | REAPP-01-24 | New appendix provides electric readiness provisions for water heaters, household clothes dryers and cooking appliances | Same as change between 2021 IECC and 2024 IECC | None (not mandatory unless adopted by ordinance) | None (not mandatory unless adopted by ordinance) |
| Appendix RL Renewable Energy Infrastructure | REPI-33-21, | New appendix provides requirements for building | Same as change between 2021 IECC and 2024 IECC | None (not mandatory unless | None (not mandatory unless |

| 2024 IECC Section and Title* | ICC Code Change No. | Change Summary b/t 2021 IECC and 2024 IECC | Change Summary b/t 2023 FBC-EC and 2024 IECC | Anticipated Energy Impact on FBC-EC if Adopted | Anticipated Cost Impact on FBC-EC if Adopted |
|---|---|---|---|---|---|
| | REAPP-01-24 | renewable energy infrastructure readiness | | adopted by ordinance) | adopted by ordinance) |