Building Energy Codes

2024 Update

International Energy Conservation Code (IECC)

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Speakers

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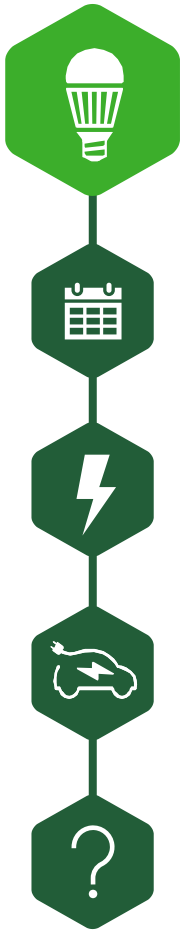
Agenda



Introduction

National News, Proposed Timeline, Stakeholder Engagement

Expected Changes

New “Readiness” and DR Codes

Next Steps

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2024 IECC (Model Code) Updates

- Appeals process is complete
- ICC Board makes final decision
  - Readiness codes move to appendices
  - DR codes moved to appendices
  - Commercial All-electric and glide path Appendices converted to resources
  - Residential All-electric Appendix retained but cautionary note added
- Waiting on publication of model code

The International Code Council Board of Directors Makes Final Decision on 2024 IECC Appeals and Addresses Preemption Challenges

On March 18, 2024, the International Code Council Board of Directors voted to affirm in part and reject in part nine appeals filed by five appellants to a draft of the 2024 commercial and residential editions of the International Energy Conservation Code® (IECC®). The Board also addressed several claims that aspects of the draft 2024 IECC codes were preempted by the federal Energy Policy and Conservation Act.

CHAPTER 11 [RE] ENERGY EFFICIENCY

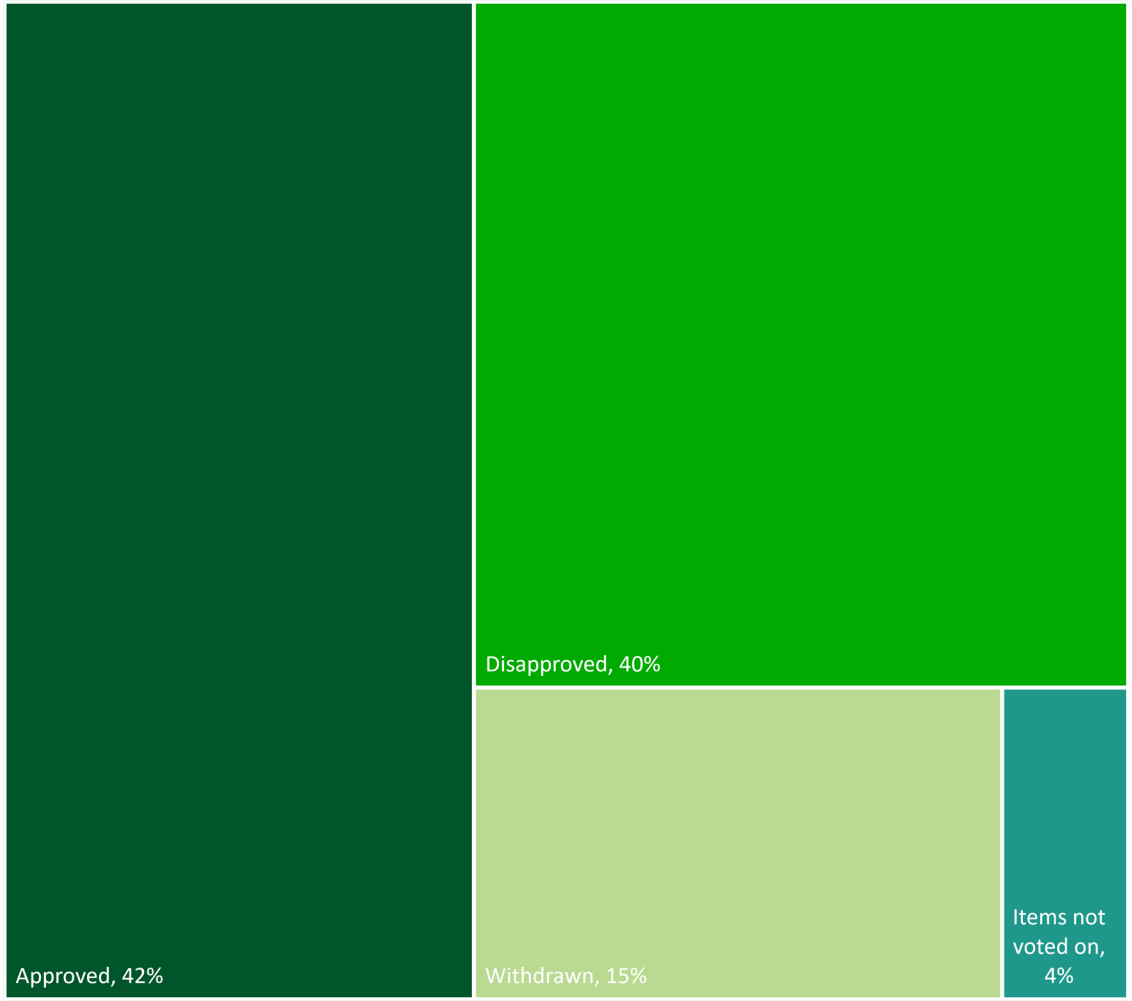
The 2024 *International Energy Conservation Code* (IECC), Chapter 11 of the 2024 *International Residential Code* (IRC) and IRC energy appendices are in the final stages of the development process. Upon completion of the appeals process in accordance with Code Council Policy CP-01 and the federal preemption process in accordance with CP-49, this content will be finalized and included in the body of this document.

2024 IECC Model Code

Significant Changes

2024 IECC Changes

CODE ACTIONS	RESIDENTIAL	COMMERCIAL
APPROVED	279	293
DISAPPROVED	339	209
WITHDRAWN	105	96
NO VOTE	27	21
TOTAL	**750**	**619**



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Expected Changes – Residential

2024 IECC (Proposed)

- Conversion of the current Additional Energy Efficiency requirement into a point system with envelope, mechanical, demand response and onsite solar options for prescriptive path users. Modeling path users to demonstrate up to 20% energy savings.
- Demand response controls must be included on electric water heaters (currently allowed in Austin Energy Code).
- Bathrooms with intermittent exhaust fans must include controls to help remove excess moisture. Can include timers, occupant sensors, humidity control or contaminant control (similar to requirement in AEGB program).
- Air leakage target reduction from 5 ACH50 to 4 ACH50 for this climate zone.
- Prescriptive attic insulation requirement decreased from R49 to R38.

Expected Changes - Commercial

2024 IECC (Proposed)

- Air Leakage
  - Documentation/inspection option removed for Group R and I
  - Stringency increase from 0.4 cfm/ft^2 to 0.35 cfm/ft^2 and from 0.3 cfm/ft^2 to 0.27 cfm/ft^2 for Group R and I
- Updates to HVAC Efficiency tables
  - Align with ASHRAE standard 90.1 2022 and federal standards
  - Increases in efficiency levels
- Clarified lighting control requirements for sleeping and dwelling units (C405.2.10)
- Updates to Additional Efficiency section C406 that provide additional credit paths that to align with ASHRAE standard 90.1 2022

Local Code Proposals

Readiness Codes and DR

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ESS and Renewable Energy

2024 IECC (Proposed)

- Prescriptive requirements for renewable energy systems were introduced
  - Provide system with 0.75 W/ft2 based on the combined gross conditioned floor area of the three largest floors
  - Provisions for off-site renewables and procurement are given, including RECs and green retail tariff
- Requirements to either provide an Energy Storage System (ESS) or to have a space that is ESS ready were moved to an optional appendix by the ICC board
- Working with solar team to determine whether to adjust renewable energy systems and/or adopt ESS requirements

Demand Response

Residential

- DR controls required on electric storage water heaters
- Demand responsive thermostat option in R408
- Coordinating with DR team for their recommendations

Commercial

- DR requirements were included in the COA energy code through amendments
- DR provisions are now included in the 2021 IECC, though they have been moved to optional appendices
- Coordinating with DR team to determine whether IECC language can replace our existing language

Electric Vehicle Readiness

2024 IECC (Proposed)

Residential

- One- and two-family dwellings and townhouses = one EV-capable, EV-ready or EVSE per dwelling unit
- R-2 occupancies = EV-capable, EV-ready or EVSE space for 40% of dwelling units or automobile parking spaces, whichever is less

Commercial

EV-capable, EV-ready, or EVSE quantities required determined by building occupancy type(s)

Required EV Power Transfer Infrastructure

Occupancy	EVSE Spaces	EV Ready Spaces	EV Capable Spaces
Group A	10%	0%	10%
Group B	15%	0%	30%
Group E	~~2%~~15%	0%	~~5%~~30%
Group F	2%	0%	5%
Group H	1%	0%	0%
Group I	~~2%~~15%	0%	~~5%~~30%
Group M	~~10%~~15%	0%	~~10%~~30%
Group R-1	20%	5%	75%
Group R-2	20%	5%	75%
Group R-3 and R-4	2%	0%	5%
Group S exclusive of parking garages	1%	0%	0%
Group S-2 parking garages	~~1%~~15%	0%	~~0%~~30%

Definitions

EV-Capable - Capacity and conduit
EV-Ready - Capacity, conduit, wiring and outlet
EVSE - Capacity, conduit, wiring and charging station

Electric Readiness

2024 IECC (Proposed)

Residential

- Capacity to be included in load calculations
- Dedicated branch circuit outlets shall be installed and terminate within three feet of and with a rating not less than
  - Cooking appliances: 240-volts, 40-amps
  - Clothes dryers: 240-volts, 30-amps
  - Water heaters: either 240-volts, 30-amps or 120V, 20-amps
- Exceptions allowed for equipment not installed or serving multiple dwelling units

Commercial

- Requirements included in Appendix CH
- Combustion space heating
- Combustion service water heating
- Combustion cooking/clothes drying
- Reserved space for future electric equipment
- Dedicated branch circuits

Space Clearances

Research

AEGB is contacting local and national partners to determine the practicability of a local code amendment to include space clearances minimums for water heaters.

Electrify Now Webinar: 120 Volt Plug-In Heat Pump Water Heaters