

Performance-based Code Compliance

IECC 2024 vs. ASHRAE 90.1-2022

KEY HIGHLIGHTS AND EARLY DESIGN DECISION GUIDANCE

Objective:

As more jurisdictions adopt IECC 2024, project teams are encountering increasingly stringent energy code requirements and a growing need for energy modeling to demonstrate compliance. Selecting the appropriate compliance pathway early can significantly impact project cost, design flexibility and schedule.

This document will help provide an overview of the two current performance-based pathways being used for compliance in IECC 2024 and which option works best for a project and how early design guidance can help project meet their compliance goals/targets.

EXECUTIVE SUMMARY

With the adoption of IECC 2024 accelerating across many jurisdictions, project teams are encountering significantly more stringent prescriptive energy code requirements. In many cases, requirements related to renewables, metering, controls, and other mandatory measures can increase project cost or limit design flexibility. As a result, more projects are evaluating performance-based compliance pathways supported by energy modeling to identify more practical and cost-effective approaches.

For many commercial projects, **ASHRAE 90.1-2022 Chapter 12 (Energy Cost Budget Method)** can provide a more practical and flexible path to compliance than IECC 2024 performance compliance. However, success depends on evaluating code pathways early and aligning the design team before major architectural and MEP decisions are made.

The most important decision point is not a single line item. It is whether the project benefits more from IECC 2024's relative readability and the Authority Having Jurisdiction (AHJ) familiarity, or from ASHRAE 90.1-2022's greater performance-path flexibility and less restrictive treatment of several requirements. Projects cannot mix and match provisions. Once a path is selected, the project must follow that path consistently for the full project scope to avoid additional work needed to prove code compliance after a project is designed.

Quick Decision Framing

Consider IECC 2024 When:

- ▲ When local reviewers expect IECC documentation
- ▲ The project is expected to follow a mostly prescriptive approach.
- ▲ Design goals align with IECC mandatory requirements, including renewables and enhanced metering requirements

Consider ASHRAE 2022 Chapter 12 When:

- ▲ The project requires greater design flexibility.
- ▲ When the team wants to avoid some IECC mandatory provisions that may increase scope, cost, or design complexity, such as on-site renewable energy.

MAIN TAKEAWAY

Select one compliance framework early and follow it consistently.

GENERAL LEAN

ASHRAE 90.1-2022 Chapter 12 is more flexible and more cost effective for many commercial projects.

CAUTION

Final pathway depends on jurisdiction adoption, amendments, project type, and AHJ requirements.

SIDE-BY-SIDE COMPARISON

The table below paraphrases the key distinctions identified by the Building Sciences & Sustainability Team and reorganizes them by project impact area for easier use in owner, design team, and internal strategy conversations.

Comparison Topic	IECC 2024 Requirement / Consideration	ASHRAE 90.1-2022 Requirement / Consideration
Compliance Flexibility	More mandatory provisions	Greater opportunity for trade-offs
Window-to-Wall Ratio	30% Prescriptive Limit	40% Prescriptive Limit
Air Leakage Testing	Generally mandatory	Reduced testing burden on many larger buildings
Metering	More extensive requirements	Less restrictive thresholds
Renewables	Mandatory renewable strategy in many cases	Greater flexibility through performance compliance
Performance Compliance	Aggressive savings targets	Chapter 12 Energy Cost Budget Method often more achievable
Overall Trend	More prescriptive and restrictive	More flexible and performance-oriented

RECOMMENDED USE IN PROJECT CONVERSATIONS

Use this section as a concise talking point set for early design meetings, owner decision logs, and internal energy code strategy discussions.

Situation	Practical response
Client asks for the easiest compliance path	Discuss both AHJ expectations and modeling flexibility before selecting an approach.
Project includes extensive glazing	Evaluate ASHRAE 90.1 2022 early.
Project is pursuing performance compliance	Review ASHRAE 90.1 2022 Chapter 12 as a potential first option.
Project triggers renewables, metering, or FDD requirements	Compare IECC mandatory provisions against ASHRAE alternatives before design decisions are finalized.
Jurisdiction is adopting IECC 2024	Engage Sustainability early to evaluate compliance risk and opportunities.

SUGGESTED SALAS O'BRIEN POSITIONING

Because the selection carries cost, coordination, and documentation implications, Salas O'Brien can add value by facilitating an early code path decision, modeling implications before design commitments are locked, and translating technical requirements into a clear action plan for architects, engineers, contractors, and owners

Early Action Checklist

- Confirm the locally adopted energy code, approved alternatives, and amendments.
- Decide whether IECC 2024 or ASHRAE 90.1-2022 will be used before design tradeoffs are assumed.
- Document the selected path in the owner decision log and basis of design.
- Confirm facade strategy, air leakage testing expectations, controls scope, metering, renewables, and commissioning scope.
- Align the architect, MEP engineer, envelope consultant, energy modeler, commissioning provider, and contractor on requirements before DD pricing.
- Prepare a concise AHJ narrative if ASHRAE 90.1-2022 is used where IECC is the familiar review path

SOURCE NOTES

Reference publication listing: [ICC Digital Codes, 2024 IECC and ANSI/ASHRAE/IES Standard 90.1-2022](#)

This document is a paraphrased, branded summary for discussion purposes. It is not a substitute for the adopted code text, local amendments, owner requirements, or AHJ interpretation.