



NEVADA ENERGY CODE

SUMMARY OF KEY RESIDENTIAL ENERGY CODE REQUIREMENTS

The 2021 IECC was adopted as published in Nevada and went into effect on **July 28, 2021**. This document summarizes the changes to the building envelope-related requirements in the updated code for Nevada.



► CODE CHANGE HIGHLIGHTS ◀

- Increased ceiling insulation across all climate zones and increased wall insulation in Climate Zones 4 & 5.
- The 2021 IECC incorporated section R408 “Additional Efficiency Packages.” This section requires each dwelling to comply with one of the additional packages listed.
- Pursuant to NRS 701.220, the Governor’s Office of Energy (GOE) is required to adopt the most recent version of the IECC. Upon adoption by GOE, local municipalities shall follow suit and are authorized to adopt amendments and/or provisions which are more stringent than the standards published and adopted.

► BUILDING ENVELOPE AND DUCT REQUIREMENTS ◀

PRESCRIPTIVE	CLIMATE ZONE 3	CLIMATE ZONE 4	CLIMATE ZONE 5
Wood Frame Wall	R-20 or R-13+5 ci or R-0+15 ci / U-0.060	R-30 or R-20+5 ci or R-13+10 ci or R-0+20 ci / U-0.045	
Basement Walls	R-13 or R-5 ci / U-0.091	R-13 or R-10 ci / U-0.059	R-19 or R-13+5 ci or R-15 ci / U-0.050
Mass Wall ^a	R-8 or R-13 / U-0.098		R-13 or R-17 / U-0.082
Crawl Space Walls	R-13 or R-5 ci / U-0.136	R-13 or R-10 ci / U-0.065	R-19 or R-13+5 ci or R-15 ci / U-0.055
Ceilings	R-49 / U-0.030	R-60 / U-0.024	
Floor	R-19 / U-0.047		R-30 / U-0.033
Slab R-value/Depth	R-10 / 2 feet	R-10 / 4 feet	
Fenestration	U-0.30 / SHGC-0.25		U-0.30 / SHGC-0.40

DUCT LEAKAGE

MEASUREMENT	CFM25 / 100 SQ. FT.
Rough-in (installed air handler)	3
Rough-in (air handler not installed)	4
Post-construction	4
Within The Thermal Envelope	8

DUCT R-VALUE

R-VALUE
R-8 ^b

AIR LEAKAGE

CLIMATE ZONE	MEASUREMENT
ALL CLIMATE ZONES	3 ACH50

MAXIMUM ENERGY RATING INDEX (ERI)

CLIMATE ZONE 3	CLIMATE ZONE 4	CLIMATE ZONE 5
51	54	55

a. The first R-value applies where >50% of the insulation is on the interior side.

b. In attics. R-6 in other portions of the building. R-6 and R-4.2 respectively for ducts < 3 inches.

MORE INFORMATION ON THE NEVADA ENERGY CODE CAN BE FOUND HERE:

<https://codes.iccsafe.org/content/IECC2021P2>

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This summary is offered for informational purposes only. It does not purport to be an exhaustive analysis of code changes or provide advice that will ensure guaranteed compliance with any energy code provision. Please consult with local authorities before finalizing your installation plans.



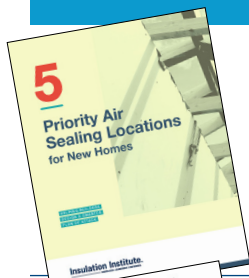
ENERGY-EFFICIENT, COST-EFFECTIVE CONSTRUCTION WITH FIBERGLASS AND MINERAL WOOL INSULATION



As code levels advance, **keep informed about innovative practices** to meet or exceed code requirements using cost-effective fiberglass and mineral wool insulation.

The following resources in the table below are just a subset of the many guides available from the **Insulation Institute** to help you achieve new performance requirements with proven approaches.

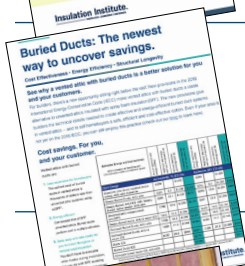
INSULATION INSTITUTE RESOURCES



Air Leakage

As states adopt more stringent energy codes, some builders may experience challenges meeting new mandatory air leakage requirements. Fiberglass and mineral wool insulation is the low-cost solution for homebuilders to meet or surpass code air leakage rate requirements of 3 or 5 air changes per hour depending on climate zone. For homeowners, an airtight building envelope results in energy savings and increased thermal comfort.

<https://insulationinstitute.org/wp-content/uploads/2018/05/N090-5-Air-Sealing-Locations-for-New-Homes.pdf>



Ducts Buried Within Ceiling Insulation

Deeply buried ducts in attics is an easy way to lower energy code compliance costs for builders using the simulated energy performance path. Homeowners can benefit from energy savings realized from lower-capacity, lower-cost HVAC systems.

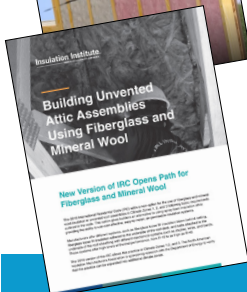
<https://insulationinstitute.org/wp-content/uploads/2019/03/N087-Buried-Ducts-The-newest-way-to-uncover-savings.pdf>



Proper Installation of Insulation

Grade I installation delivers superior energy efficiency and is increasingly required by state energy codes. Insulation installation jobs that fail to meet Grade I criteria can mean construction delays due to callbacks, HERS rating penalties, and failed code inspections. Grade I installation is readily achievable by following basic guidelines as recommended by manufacturers. NAIMA offers free online training for installers.

www.grade1insulation.org



Unvented Attics Using Fiberglass and Mineral Wool Insulation

Unvented attics can be constructed by installing fiberglass or mineral wool insulation below the roof deck instead of using more costly materials like spray foam. In addition, fiberglass and mineral wool insulation products are green certified and do not carry recommended occupancy restrictions due to product off-gassing after installation. Starting with the 2018 IRC, this practice is outlined in detail within the code. Homeowners benefit from lower construction costs and the use of a safe product.

<https://insulationinstitute.org/wp-content/uploads/2018/05/BuildingUnventedAtticAssemblies-N089.pdf>

LEARN MORE ABOUT THE ERI COMPLIANCE PATH HERE:

<https://www.energycodes.gov/technical-assistance/training/courses/2015-iecc-energy-rating-index-eri-compliance-alternative>

Get the Facts for a Stronger Business

Learn more about fiberglass and mineral wool insulation at InsulationInstitute.org

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NORTH AMERICAN INSULATION
MANUFACTURERS ASSOCIATION

2013 Olde Regent Way • Suite 150, Box 120 • Leland, NC 28451
InsulationInstitute.org • 703.684.0084