

## Comparing Building Efficiency Requirements for Utah's Code and LZE Certifications

Both the ENERGY STAR NextGen and Zero Energy Ready Home standards go above what is required by Utah's building code, the 2021 IECC building code, and ENERGY STAR v3.2. As shown in the table below, the ENERGY STAR NextGen and Zero Energy Ready Home programs require advanced HVAC and water heating equipment, EV- and/or PV-readiness, and adherence to 2021 IECC building envelope requirements.

Comparing Building Efficiency Requirements for Utah's IECC and LZE Certifications			
Building Component or Quality	Utah Code Requirements	ENERGY STAR NextGen (v3.2) Requirements	Zero Energy Ready Home V2 Requirements
Framed Walls	20+0 or 13+5 U Factor: 0.060	Building envelope must achieve 2021 IECC UA (total heat loss) standards – <b>See IECC Table R402.1.2 and Table R402.1.35 below</b>  Must have AGW (air gap width) reduced thermal breaks (R5 CI or advanced framing, or other)	Building envelope must achieve 2021 IECC UA (total heat loss) standards – <b>See IECC Table R402.1.2 and Table R402.1.35 below</b>
Mass Wall	13/17 U Factor: 0.082		
Foundation Walls	15/19		
Slab	10-2'		
Ceiling	R Value: 49		
Floor	R Value: 30		
Windows	U Factor: 0.32	Included in building envelope UA calculation (fenestration requirements)  Reference: U: 0.27 SHGC: 0.40	Included in building envelope UA calculation (fenestration requirements)  U-Value = SHGC ≤ 0.27 = Any = 0.28 = ≥ 0.32 = 0.29 = ≥ 0.37 = 0.30 = ≥ 0.42
ACH	3.5 ACH50	≤ 3 ACH50	≤ 3 ACH50
Ventilation	If ≤ 3 ACH50, must be mechanically ventilated	Mechanical ventilation, exhaust to outdoors for the kitchen and bathrooms, ENERGY STAR certified bathroom fans, Merv 6 filter	Mechanical ventilation, exhaust to outdoors for the kitchen and bathrooms, ENERGY STAR certified bathroom fans, Merv 6 filter
Furnace AFUE	80	N/A	N/A

AC SEER	13	N/A	N/A
Heat Pump	N/A	ENERGY STAR certified cold climate heat pump with two-speed or variable-speed blower fan & compressor	Heat pump ready (wired or conduit)
Water Heater	0.62	208/240 volt ENERGY STAR certified heat pump water heater	Water heater locations must be wired with 240V/30A or 120V/20A  UEF ≥ 0.87 (gas), UEF ≥ 2.2 (electric, > 55 gallons), UEF ≥ 2 (electric, ≤ 55 gallons)  Must meet EPA <a href="#">WaterSense</a> hot water delivery criteria
Ducts	Attic: R-8 Other areas: R-6 ≤ 6 cfm/100 sf	N/A	All ducts and HVAC equipment must be in a conditioned space
Lighting	N/A	N/A	100% LED lighting
Appliances	N/A	N/A	ENERGY STAR certified appliances
EV Charging	N/A	208/240 receptacle installed in garage or near driveway, with a dedicated 40-amp breaker	208/240 receptacle installed in garage (or near driveway), with a dedicated 30-amp breaker
Solar PV	N/A	N/A	PV Ready (if applicable)
Other	N/A	WiFi or ENERGY STAR certified smart thermostat  Electric cooktops and ovens	EPA Indoor airPLUS  ERI (Energy Rating Index) score must be ~ 54-55 (depending on specific climate zone)

*A comparison of home building standards by their components and associated efficiency/equipment requirements. Based on Utah climate zone requirements and sourced from Resource Innovations (2024).*

For more information, visit <https://hub.utahcleanenergy.org/homebuilder-toolkit/>.