

CITY OF ENCINITAS

Residential Building Energy Efficiency Regulations

Encinitas Municipal Code Section 23.12.080



What projects are affected?

Ordinance 2024-04, adopted by City Council on June 12, 2024, affects **existing single family** (including duplexes and townhomes) residential building **additions** or **alterations with a permit value of \$50,000 or higher**. The ordinance is effective in the second half of 2024 as part of EMC Section 23.12.080.D. Please consult with the Building Division for more information.

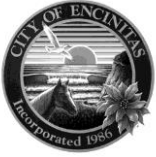
What are the requirements?

Applicable projects shall include any one of the measures identified in the following Table 150.2-E. The following requirements shall apply to the entire dwelling unit, not just the addition or altered portion. The measures shall be installed to the specifications in Table 150.2-F located on the following page.

| Table 150.2-E: Single-family Requirements | | | |
|--|--------------------------|--------------------------|--------------------------|
| Measures | Building Vintage | | |
| | Pre-1978 | 1978-1991 | Post-1991 |
| LED Lamps, Vacancy Sensors and Exterior Photocells | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Water Heating Package | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cool Roof | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| R-38 Attic Insulation and Air Sealing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Duct Sealing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| New Ducts + Duct Sealing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Windows | <input type="checkbox"/> | <input type="checkbox"/> | |
| R-13 Wall Insulation | <input type="checkbox"/> | | |
| Heat Pump Water Heater (HPWH) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Heat Pump HVAC | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Heat Pump Clothes Dryer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Induction Cooktop | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| PV + Electric Ready Pre-Wire | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Are there any exceptions?

These requirements do not apply to residential buildings that receive a rating of seven (7) or higher on the U.S. Department of Energy's Home Energy Score rating system based upon an assessment by a Home Energy Score Certified Assessor, to the satisfaction of the Development Services Director or their designee.



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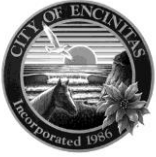
Single Family Residential Energy Efficiency Regulations



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Measurement Specifications:

| Table 150.2-F: Single Family Measure Specifications |
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| Measure Specifications |
| <p>LED lamps, Vacancy Sensors and Exterior Photocells: Replace all interior and exterior screw-in incandescent, halogen, and compact fluorescent lamps with LED lamps. Install manual-on automatic-off vacancy sensors that meet Title 24 Section 110.9(b)4 in all bathrooms, bedrooms, offices, laundry rooms, utility rooms, and garages. Spaces which already include vacancy sensors, motion sensors, or dimmers do not need to install new Title 24 Section 110.9(b)4 sensors. Install photocell controls on all exterior lighting luminaires.</p> |
| <p>Water Heating Package: Add exterior insulation meeting a minimum of R-6 to existing storage water heaters. Insulate all accessible hot water pipes with pipe insulation a minimum of ¾ inch thick. This includes insulating the supply pipe leaving the water heater, piping to faucets underneath sinks, and accessible pipes in attic spaces or crawlspaces. Upgrade fittings in sinks and showers to meet current California Green Building Standards Code (Title 24, Part 11) Section 4.303 water efficiency requirements.</p> |
| <p>Cool Roof: Install a cool roof. For steep-sloped roofs (ratio of rise to run greater than 2:12) install a roofing product rated by the Cool Roof Rating Council to have an aged solar reflectance equal to or greater than 0.25, and a thermal emittance equal to or greater than 0.75. For low-sloped roofs, install a roofing product meeting the requirements of Section 150.2(b)1liia, and insulate the roof in accordance with Section 150.2(b)1liib. Only areas of roof that are to be re-roofed are subject to the cool roof upgrade. All exceptions as stated in 2022 Title 24 Section 150.2(b)1li for steep slope roofs and 150.2(b)1lii for low slope roofs are allowed.</p> |
| <p>R-38 Attic Insulation and Air Sealing.</p> <p>Attic Insulation: Attic insulation shall be installed to achieve a weighted assembly U-factor of 0.026 or insulation installed at the ceiling level shall have a thermal resistance of R-38 or greater for the insulation alone. Recessed downlight luminaires in the ceiling shall be covered with insulation to the same depth as the rest of the ceiling. Luminaires not rated for insulation contact must be replaced or fitted with a fire-proof cover that allows for insulation to be installed directly over the cover. Existing R-19 insulation satisfies this requirement.</p> <p>Air Sealing: Seal all accessible cracks, holes, and gaps in the building envelope at walls, floors, and ceilings. Pay special attention to penetrations including plumbing, electrical, and mechanical vents, recessed can light luminaires, and windows. Weather-strip doors if not already present. Testing shall be conducted by a certified HERS Rater no more than three years prior to the permit application date that either: a) shows at least a 30 percent reduction from pre-retrofit conditions; or b) shows that the number of air changes per hour at 50 Pascals pressure difference (ACH50) does not exceed ten for Pre-1978 vintage buildings, seven for 1978 to 1991 vintage buildings and five for post 1991 vintage buildings. If combustion appliances are located within the pressure boundary of the building, conduct a combustion safety test by a professional certified by the Building Performance Institute in accordance with the ANSI/BPI-1200-S-2017 Standard Practice for Basic Analysis of Buildings, the Whole House Combustion Appliance Safety Test Procedure for the Comfortable Home Rebates Program 2020 or the California Community Services and Development Combustion Appliance Safety Testing Protocol.</p> |



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| <p>Duct Sealing: Air seal all space conditioning ductwork to meet the requirements of the 2022 Title 24 Section 150.2(b)1E. The duct system must be tested by a HERS Rater no more than three years prior to the permit application date to verify the duct sealing and confirm that the requirements have been met.</p> |
| <p>New Ducts + Duct Sealing: Replace existing space conditioning ductwork with new R-8 ducts that meet the requirements of 2022 Title 24 Section 150.0(m)11. This measure may not be combined with the Duct Sealing measure in this Table. To qualify, a preexisting measure must have been installed no more than three years before the Covered Single Family Project permit application date.</p> |
| <p>Windows: Replace all existing windows with high performance windows with an area-weighted average U-factor no greater than 0.32.</p> |
| <p>R-13 Wall Insulation: Install wall insulation in all exterior walls to achieve a weighted U-factor of 0.102 or install wall insulation in all exterior wall cavities that shall result in an installed thermal resistance of R-13 or greater for the insulation alone.</p> |
| <p>Heat Pump Water Heater (HPWH): Replace existing electric resistance or natural gas storage water heater with a heat pump water heater.</p> |
| <p>HVAC Heat Pump: Replace existing gas space heating system or all existing electric resistance heating systems with an electric heat pump system.</p> |
| <p>Heat Pump Clothes Dryer: Replace existing electric resistance clothes dryer with heat pump dryer with no resistance element and cap gas line.</p> |
| <p>Induction Cooktop: Replace existing gas and electric resistance stove top with inductive stove top and cap the gas line.</p> |
| <p>PV+ Electric Ready Pre-Wire: Install a solar PV system that meets the requirements of 2022 Title 24 Reference Appendix JA11. The system shall be sized such that the estimated annual kWh production shall not exceed the projected annual kWh demand. Upgrade the panelboard serving the individual dwelling to provide circuit breaker spaces for a heat pump water heater, heat pump space heater, electric cooktop and electric clothes dryer with the capacities specified in California Energy Code Section 150.0 (n), (t), (u) and (v); or, provide electrical load calculations and appliance specifications for serving all of these end-uses with a minimum 100-amp panel. Install any two circuits for electric appliances from the list below:</p> <ol style="list-style-type: none">1. Heat Pump Water Heater Ready, as specified in Section 150.0(n)12. Heat Pump Space Heater Ready, as specified in Section 150.0(t)3. Electric Clothes Dryer Ready, as specified in Section 150.0(v)4. Electric Cooktop Ready, as specified in Section 150.0(u)5. Energy Storage Systems (ESS) Ready, as specified in Section 150.0(s)6. EV Charger Ready. Install a dedicated 208/240-volt branch circuit as specified in the California Green Building Code, Title 24, Part 11, Section A4.106.8.1, which otherwise applies to new construction |

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