

2022 CALGREEN RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—ATTACHMENT

Energy Commission provisions for High-Rise Residential and Hotels/Motels Effective July 1, 2024

Note: This checklist is provided for user convenience. This checklist is not a 2022 CALGreen table.

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and Electives ¹		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third- Party <input type="checkbox"/> All
		Tier 1	Tier 2			
ENERGY EFFICIENCY (HIGH-RISE RESIDENTIAL & HOTELS/MOTELS)						
General						
5.201.1 Building meets or exceeds the requirements of the <i>California Building Energy Efficiency Standards</i> .	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> ²	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High-Rise Residential and Hotel/Motel Prerequisites A5.203.1.1 and A5.203.1.2 apply if lighting and/or mechanical systems are included. Buildings permitted without lighting or mechanical systems shall comply with Section A5.203.1.1 only.						
A5.203.1.1 Tier 1. <u>One</u> of the following efficiency measures is required. Tier 2. <u>Two</u> of the following efficiency measures is required. A5.203.1.1.1 ≤ 90% of Allowed Outdoor Lighting Power and color temperature for applicable general hardscape lighting is ≤ 3000K. See exception. A5.203.1.1.2 Newly constructed restaurants ≥ 8000 square feet with service water heaters rated ≥ 75,000 Btu/h shall install a solar water-heating system with a minimum solar savings fraction of 0.15. See exceptions. A5.203.1.1.3 Exterior loading dock doors adjacent to conditioned or indirectly conditioned spaces shall have dock seals or dock shelters installed at the time of permit. Applies to newly constructed buildings and loading dock doors added to existing buildings. A5.203.1.1.4 Daylighting devices shall be installed as specified in Title 24, Part 6, Section 140.3(d). A5.203.1.1.5 Heat recovery requirements based on ASHRAE 90.1 Section 6.5.6.1 are adapted and modified for California climate zones as specified in CALGreen. See exceptions.		<input checked="" type="checkbox"/> ²	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹ Green building measures listed in this table may be mandatory if adopted by a city, county, or city and county as specified in Section 101.7.

² Required prerequisite for this Tier.

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High-Rise Residential and Hotel/Motel Performance Standards						
<p>A5.203.1.2.1 Tier 1. Buildings complying with the first level of advanced energy efficiency shall have an Energy Budget no greater than indicated below, depending on building type and type of energy systems included in the building project. If the newly constructed building or addition does not include indoor lighting or mechanical systems, no additional performance requirements above the Energy Code are required.</p> <ol style="list-style-type: none"> 1. For nonresidential building projects that include indoor lighting or mechanical systems, but not both: No greater than 95% of the California Energy Code’s Energy Budget for the Standard Design Building as calculated by compliance software certified by the Energy Commission. 2. For nonresidential building projects that include indoor lighting and mechanical systems: No greater than 90% of the California Energy Code’s Energy Budget as calculated by compliance software certified by the Energy Commission. 3. High-rise residential and hotel/motel projects: No greater than 95% of the California Energy Code’s Energy Budget for the Standard Design Building as calculated by Compliance Software certified by the Energy Commission. 	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>A5.203.1.2.2 Tier 2. Buildings complying with the second level of advanced energy efficiency shall have an Energy Budget no greater than indicated below, depending on building type and type of energy systems included in the building project. If the newly constructed building or addition does not include indoor lighting or mechanical systems, no additional performance requirements above the Energy Code are required.</p> <ol style="list-style-type: none"> 1. For nonresidential building projects that include indoor lighting or mechanical systems, but not both: No greater than 90% of the <i>California Energy Code</i>’s Energy Budget for the Standard Design Building as calculated by compliance software certified by the Energy Commission. 2. For nonresidential building projects that include indoor lighting and mechanical systems: No greater than 85% of the <i>California Energy Code</i>’s Energy Budget for the Standard Design Building as calculated by compliance software certified by the Energy Commission. 3. High-rise residential and hotel/motel projects: No greater than 95% of the <i>California Energy Code</i> Energy Budget for the Standard Design Building as calculated by Compliance Software certified by the Energy Commission. 	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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High-Rise Residential and Hotel/Motel Renewable Energy						
A5.211.1 Onsite renewable energy. Use on-site renewable energy sources such as solar, wind, geothermal, low-impact hydro, biomass and bio-gas for ≥ 1% of the electric power calculated as the product of the building service voltage and the amperage specified by the electrical service overcurrent protection device rating or 1kW, (whichever is greater), in addition to the electrical demand required to meet 1% of the natural gas and propane use. The building project’s electrical service overcurrent protection device rating shall be calculated in accordance with the <i>California Electrical Code</i> . Natural gas or propane use is calculated in accordance with the <i>California Plumbing Code</i> .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A5.211.1.1 Documentation, Calculate the renewable onsite energy system, using a calculation method approved by the California Energy Commission, to meet the requirements of Section A5.211.1, expressed in kW. Factor in net-metering, if offered by the local utility, on an annual basis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A5.211.3 Green power. If offered by a local utility provider, participate in a renewable energy portfolio program that provides a minimum of 50% electrical power from renewable sources. Maintain documentation through utility billings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A5.212.1 Elevators and Escalators. In buildings with more than one elevator or two escalators, provide systems and controls to reduce energy demand. A5.212.1.1 Elevators. Traction elevators shall have a regenerative drive system which feeds power back into the building grid when in motion. A5.212.1.1.1 Car lights and fan. Parked elevators shall turn off car lights and fan automatically until elevator is called for use. A5.212.1.2 Escalators. Escalators shall have a VVVF motor drive system that is fully regenerative when in motion. A5.212.1.4 Controls. Controls that reduce energy demand shall meet requirements of the California Code of Regulations, Title 8, Chapter 4, Subchapter 6, and shall not interrupt emergency operations for elevators required in the <i>California Building Code</i> , Title 24, Part 2.	<input type="checkbox"/> ²	<input type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> ²	<input type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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<p>A5.213 Energy Efficient Steel Framing. Design steel framing for maximum energy efficiency. Techniques for avoiding thermal bridging in the envelope include:</p> <ol style="list-style-type: none"> 1. Exterior rigid insulation. 2. Punching large holes in the stud web without affecting structural integrity of the stud. 3. Spacing studs as far as possible while maintaining structural integrity of the structure. 4. Detailed design of intersections of wall openings and building intersections of floors, walls, and roofs 		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>