PROPOSED ENERGY PROVISIONS OF THE CALIFORNIA GREEN BUILDING STANDARDS CODE

PART 11 OF THE CALIFORNIA BUILDING CODE

(also known as CalGreen)

CALIFORNIA
ENERGY COMMISSION

Edmund G. Brown Jr., Governor

OCTOBER 2012

CEC-400-2012-012-15DAY

Key to reading the 15-Day Express Terms

Changes proposed in the 45-day terms are in single underline and strikeout.

Changes proposed in the 15-day terms (May 2012) are in double underline and strikeout.

Changes proposed in the 15-day terms (September 2012) are in double underline and strikeout and light grey highlight.

~~Title 24, Part 11 Green Building Standards~~

~~*The following text shall replace all existing text in the Energy Efficiency Divisions of the Voluntary Measure Appendices in the 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE.*~~

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

DIVISION 4.2 – ENERGY EFFFICIENCY

SECTION 4.201
GENERAL

4.201.1 Scope. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

~~APPENDIX A4 - RESIDENTIAL VOLUNTARY MEASURES~~
~~DIVISION A4.2 ENERGY EFFFICIENCY~~

~~Newly constructed low-rise residential buildings shall meet Sections 1 and 2:~~

APPENDIX A4
RESIDENTIAL VOLUNTARY MEASURES

DIVISION A4.2 – ENERGY EFFFICIENCY

SECTION A4.201
GENERAL

A4.201.1 Scope. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards. It is the intent of these voluntary standards to encourage buildings to achieve exemplary performance in the area of energy efficiency.

SECTION A4.202
DEFINITIONS

Energy Design Rating. The sum of the annual TDV energy consumption for energy use components included in the performance compliance approach for the Standard Design Building (Energy Budget) and the annual TDV energy consumption for lighting and components not regulated by Title 24, Part 6 (such as domestic appliances and consumer electronics) and accounting for the annual TDV energy offset by an on-site renewable energy system. The Design Rating is calculated by Compliance Software certified by the Energy Commission.

Energy Budget. The sum of the annual TDV energy consumption for energy use components included in the performance compliance approach for the Standard Design Building, as established in the Alternative Calculation Method Reference Manual approved by the Energy Commission and calculated by Compliance Software certified by the Energy Commission.

Time Dependent Valuation (TDV) Energy. The time varying energy caused to be used by the building to provide space conditioning and water heating and for specified buildings lighting. TDV energy accounts for the energy used at the building site and consumed in producing and in delivering energy to a site, including, but not limited to, power generation, transmission and distribution losses.

SECTION A4.203
PERFORMANCE APPROACH FOR NEWLY CONSTRUCTED BUILDINGS

A4.203.1 Energy Efficiency. Newly constructed low-rise residential buildings shall comply with Sections A4.203.1.1 and either A4.203.1.2.1 or A4.203.1.2.2.

~~1.~~ **~~A4.203.1.1 Tier 1 and Tier 2~~ Prerequisites.** Each of the following efficiency measures is required for all applicable components of the building project.

~~A.~~ ~~**Home Energy Rating System (HERS)**~~ **A4.203.1.1.1 Energy Design Rating.** An energy ~~HERS~~ design rating for the Proposed Design Building shall be computed by Compliance Software certified by the Commission ~~for the Proposed Design Building~~ and this rating shall be included in the Certificate of Compliance documentation~~s~~.

~~B.~~ **A4.203.1.1.2 Quality Insulation ~~Inspection~~Installation (QII).** The QII procedures specified in the Building Energy Efficiency Standards Reference Residential Appendix RA3.5 ~~Title 24, Part 6~~ shall be completed~~:~~.

~~C. High efficacy indoor lighting~~**A4.203.1.1.3 Lighting.** ~~In each dwelling unit,~~ Comply with all applicable requirements of Title 24, Part 6 Section 150.0(k)~~, except as required below:~~ In addition:

~~(~~1.~~)~~ All permanently installed ~~indoor~~ lighting shall be high efficacy. ~~as defined in and controlled as required by Title 24, Part 6 Section 150.0(k). Permanently installed lighting shall be and is~~Permanently installed lighting shall be installed in kitchens, bathrooms, utility rooms, and private garages at a minimum.

Exceptions:

1. Night lights which comply with Title 24, Part 6 Section 150.0(k)1E.
2. Lighting integral to exhaust fans which comply with Title 24, Part 6 Section 150.0(k)1F

~~(~~2.~~)~~ All permanently installed lighting in bathrooms ~~is~~shall be controlled by a vacancy sensor.

Exception: One high efficacy luminaire with total lamp wattage rated to consume no greater than 26 watts of power ~~is not required to be controlled by a vacancy sensor~~.

~~(~~3.~~)~~ Every room greater than 70 square feet which does not have permanently installed lighting and has receptacles installed shall have at least one switched receptacle installed~~:~~.

~~(4.) Permanently installed night lights complying with Title 24, Part 6 Section 150.0(k)1E are allowed.~~

~~(5.) Lighting integral to exhaust fans complying with Title 24, Part 6 Section 150.0(k)1F is allowed.~~

~~(6.)~~ For single family residences, all permanently installed outdoor lighting ~~is high efficacy as defined in Title 24, Part 6 Section 150.0(k) and is controlled as required in~~ shall have controls complying with Title 24, Part 6 Sections 150.0(k)9Ai ~~-iii~~ and iii. For multi-family residential buildings, all permanently installed outdoor lighting controlled from within a dwelling unit shall have controls complying with ~~for private patios, entrances, balconies, and porches is high efficacy as defined in Title 24, Part 6 Section 150.0(k) and is controlled as required in~~ Title 24, Part 6 Sections 150.0(k)9Ai ~~-iii~~ and iii. For multi-family residential buildings, all permanently installed outdoor lighting which is not controlled from within a dwelling unit shall have controls complying with Title 24, Part 6 Section 150.0(k)9Bii.

~~D. **High efficacy exterior lighting.** All permanently installed exterior lighting mounted to the building shall be high efficacy as defined in and controlled as required by Title 24, Part 6.~~

~~E.~~D. ~~**Maximum Hot Water Pipe Volume.**~~

~~(1) **Hot Water Distribution Systems without Recirculation:** The maximum volume of water contained in hot water distribution pipe between the water heater and any fixture fitting shall not exceed 32 ounces. Exception: Branches serving bathtubs without showers.~~

~~(2) **Hot Water Distribution Systems with Recirculation:** The maximum volume of water contained in each branch between the recirculation loop and a fixture fitting shall not exceed 16 ounces. Exception: Branches serving bathtubs without showers.~~

~~2.~~ **A4.203.1.2 Performance Standard.** Comply with ~~O~~one of the ~~following~~ advanced efficiency levels ~~shall be met:~~indicated below.

~~A.~~ **A4.203.1.2.1 Tier 1~~1~~:** Buildings complying with the first level of advanced energy efficiency shall have an Energy Budget that is no greater than 85 percent ~~or less than~~of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission. ~~There shall be a limit on calculated tFor single family residences, total net building electricity consumption placed onof the Proposed Design Building withinas calculated by the Compliance Software that is equivalent toshall be no greater than 10,000 kWh per year. A Proposed Design Building calculated by the Compliance Software to consume more than this amount of grid supplied electricity shall use additional energy efficiency measures or an on-site solar electric system to reduce the Proposed Design Building calculated total net building electricity consumption to a level that is at or belowno greater than 10,000 kWh per year; or~~

~~B.~~ **A4.203.1.2.2 Tier 2~~H~~:** Buildings complying with the second level of advanced energy efficiency shall have an Energy Budget that is no greater than 70 percent ~~or less than~~of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission. ~~There shall be a limit on calculated tFor single family residences, total net building electricity consumption placed onof the Proposed Design Building withinas calculated by the Compliance Software that is equivalent toshall be no greater than 8,500 kWh per year. A Proposed Design Building calculated by the Compliance Software to consume more than this amount of grid supplied electricity shall use additional energy efficiency measures or an~~

~~on-site solar electric system to reduce the Proposed Design Building calculated total net building electricity consumption to a level that is at or below no greater than 8,500 kWh per year.~~

Note: For Energy Budget calculations high-rise residential and hotel/motel buildings are considered nonresidential buildings.

~~Additions and alterations to low-rise residential buildings shall meet Sections 3 and 4:~~

SECTION A4.203
PERFORMANCE APPROACH FOR ADDITIONS AND ALTERATIONS

A4.204.1 Energy Efficiency. Additions and alterations to low-rise residential buildings shall comply with Sections A4.204.1.1 and either A4.204.1.2.1 or A4.204.1.2.2.

~~3.~~ **A4.204.1.1 Tier 1 and Tier 2 Prerequisites.** Each of the following efficiency measures is required if applicable to the addition or alteration building project:

~~A. **Quality Insulation Inspection (QII).** The QII procedures specified in Title 24, Part 6 shall be completed;~~

~~C~~B. ~~**High efficacy indoor lighting.** All permanently installed lighting shall be high efficacy as defined in and controlled as required by Title 24, Part 6. Permanently installed lighting shall be installed in kitchens, bathrooms, utility rooms, and garages at a minimum. Every room which does not have permanently installed lighting shall have at least one switched receptacle installed. Each ceiling fan provided by the builder shall be installed with an ENERGY STAR light kit; and~~ **A4.204.1.1.1 Lighting.** ~~In each dwelling unit,~~ Comply with all applicable requirements of Title 24, Part 6 Section 150.0(k)~~, except as required below:~~ In addition:

~~(~~1.~~)~~ All newly installed, permanently installed ~~new indoor~~ lighting shall be high efficacy ~~as defined in and controlled as required by Title 24, Part 6 Section 150.0(k).~~

Exceptions:

1. Night lights complying with Title 24, Part 6 Section 150.0(k)1E.

~~1.~~2. Lighting integral to exhaust fans complying with Title 24, Part 6 Section 150.0(k)1F.

~~(~~2.~~)~~ All newly installed, permanently installed ~~new~~ lighting in bathrooms ~~is~~shall be controlled by a vacancy sensor.

Exception: One high efficacy luminaire with total lamp wattage rated to consume no greater than 26 watts of power ~~is not required to be controlled by a vacancy sensor.~~

~~(~~3.~~)~~ Every new room greater than 70 square feet which does not have newly installed, permanently installed lighting and has newly installed receptacles shall have at least one switched receptacle installed.

~~(4.) Permanently installed new night lights complying with Title 24, Part 6 Section 150.0(k)1E are allowed.~~

~~(5.) Lighting integral to new exhaust fans complying with Title 24, Part 6 Section 150.0(k)1F is allowed.~~

~~(6.)~~ For single family residences, all newly installed, permanently installed ~~new~~ outdoor lighting ~~is high efficacy as defined in Title 24, Part 6 Section 150.0(k) and is~~shall have controls complying with ~~controlled as required in~~ Title 24, Part 6 Sections 150.0(k)9Ai ~~iii~~ and iii. For multi-family residential buildings, all newly installed, permanently installed ~~new~~ outdoor lighting controlled from within a dwelling unit shall have controls complying with ~~for private patios, entrances, balconies, and porches is high efficacy as defined in Title 24, Part 6 Section 150.0(k) and is controlled as required in~~ Title 24, Part 6 Sections 150.0(k)9Ai ~~iii~~ and iii. For multi-family residential buildings, all newly installed, permanently installed outdoor lighting which is not controlled from within a dwelling unit shall have controls complying with Title 24, Part 6 Section 150.0(k)9Bii.

~~D. **High efficacy exterior lighting.** All permanently installed lighting mounted to the building shall be high efficacy as defined in and controlled as required by Title 24, Part 6.~~

~~4.~~ **A4.204.1.2 Performance Standard.** Comply with ~~O~~one of the ~~following~~ advanced efficiency levels indicated below. ~~shall be met:~~

~~A.~~ **A4.204.1.2.1 Tier ~~1~~1:** Buildings complying with the first level of advanced energy efficiency shall have an Energy Budget that is no greater than ~~(1) or (2)~~indicated below, depending on the number of mechanical systems added or modified. Space heating systems, space cooling systems and water heating systems are each separate mechanical systems for the purpose of complying with this requirement. If the addition or alteration changes only the envelope with no change to any mechanical system~~s~~, then no additional performance requirements above Title 24, Part 6 are required.

~~(~~1.~~)~~ For one and only one mechanical system: No greater than 95 percent ~~or less than~~of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission. ~~for each mechanical system altered. Mechanical systems include heating, space cooling, and water heating systems. If the addition or alteration changes the envelope with no change to mechanical systems, then no additional efficiency measures above Part 6 are required; or~~

~~(~~2.~~)~~ For two or more mechanical systems: No greater than 90 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission.

~~B.~~ **A4.204.1.2.2 Tier 2~~H~~:** Buildings complying with the second level of advanced energy efficiency shall have an Energy Budget that is no greater than ~~(1) or (2)~~indicated below, depending on the number of mechanical systems added or modified. Space heating systems, space cooling systems and water heating systems are each separate mechanical systems for the purpose of complying with this requirement. If the addition or alteration changes only the envelope with no change to any mechanical system~~s~~, then no additional performance requirements above Title 24, Part 6 are required. ~~90 percent or less than the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission for each mechanical system altered. Mechanical systems include heating, space cooling, and water heating systems. If the addition or alteration changes the envelope with no change to mechanical systems, then no additional efficiency measures above Part 6 are required.~~

~~(~~1.~~)~~ For one and only one mechanical system: No greater than 90 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission. ~~; or~~

~~(~~2.~~)~~ For two or more mechanical systems: No greater than 85 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission.

Note: ~~The Energy Budget is the sum of the TDV energy for energy use components included in the performance compliance approach for the Standard Design Building, as established in the Alternative Calculation Method Reference Manual approved by the Energy Commission, and calculated by the Compliance Software.~~ For Energy Budget calculations high-rise residential and hotel/motel buildings are considered nonresidential buildings.

APPENDIX A4
RESIDENTIAL VOLUNTARY MEASURES

DIVISION A4.6 – TIER 1 AND TIER 2

SECTION A4.601
GENERAL

A4.601.4.2 Prerequisite and elective measures for Tier 1.

2. From Division A4.2, Energy Efficiency.

2.1 For newly constructed low-rise residential buildings, comply with the energy efficiency requirements in Section A4.203.1.1 and Section A4.203.1.2.1.

2.2 For additions and alterations to low-rise residential buildings, comply with the energy efficiency requirements in A4.204.1.1 and Section A4.204.1.2.1.

A4.601.5.2 Prerequisite and elective measures for Tier 2.

2. From Division A4.2, Energy Efficiency.

2.1 For newly constructed low-rise residential buildings, comply with the energy efficiency requirements in Section A4.203.1.1 and Section A4.203.1.2.2.

2.2 For additions and alterations to low-rise residential buildings, comply with the energy efficiency requirements in A4.204.1.1 and Section A4.204.1.2.2.

APPENDIX A4
RESIDENTIAL VOLUNTARY MEASURES

DIVISION A4.6 – TIER 1 AND TIER 2

SECTION A4.602
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
		Prerequisites and electives [1]		Enforcing Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2	☐ All	☐ All	☐ All
ENERGY EFFICIENCY						
General						
4.201.1 Building meets or exceeds the requirements of the California Building Energy Efficiency Standards. [2]	☒	☒[3]	☒[3]	☐	☐	☐
Performance Approach for Newly Constructed Buildings						
A4.203.1.1.1 An Energy Design Rating for the Proposed Design Building is included in the Certificate of Compliance documentation.		☒[3]	☒[3]	☐	☐	☐
A4.203.1.1.2 QII procedures specified in the Building Energy Efficiency Standards Reference Residential Appendix RA3.5 are completed.		☒[3]	☒[3]	☐	☐	☐
A4.203.1.1.3 All permanently installed lighting is high efficacy and has required controls.		☒[3]	☒[3]	☐	☐	☐
A4.203.1.2.1 The Energy Budget is no greater than 85 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building.		☒[3]		☐	☐	☐
A4.203.1.2.2 The Energy Budget is no greater than 70 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building.			☒[3]	☐	☐	☐
Performance Approach for Additions and Alterations						
A4.204.1.1.1 All newly installed, permanently installed lighting is high efficacy and has required controls.		☒[3]	☒[3]	☐	☐	☐

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives [1]		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	☐ All	☐ All	☐ All
A4.204.1.2.1 When one and only one mechanical system is added or modified, the Energy Budget is no greater than 95 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building. When two or more mechanical systems are added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building.		☒[3]		☐	☐	☐
A4.204.1.2.2 When one and only one mechanical system is added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building. When two or more mechanical systems are added or modified, the Energy Budget is no greater than 85 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building.			☒[3]	☐	☐	☐

1. Measures in this table may be mandatory if adopted by a city, county, or city and county as specified in Section 101.7.
2. These measures are currently required elsewhere in statute or in regulation.
3. Required for this Tier.

APPENDIX A5
NONRESIDENTIAL VOLUNTARY MEASURES

DIVISION A5.2 ENERGY EFFFICIENCY

SECTION A5.202
DEFINITIONS

Energy Budget. The sum of the annual TDV energy consumption for energy use components included in the performance compliance approach for the Standard Design Building, as established in the Alternative Calculation Method Reference Manual approved by the Energy Commission and calculated by Compliance Software certified by the Energy Commission.

Time Dependent Valuation (TDV) Energy. The time varying energy caused to be used by the building to provide space conditioning and water heating and for specified buildings lighting. TDV energy accounts for the energy used at the building site and consumed in producing and in delivering energy to a site, including, but not limited to, power generation, transmission and distribution losses.

SECTION A5.203
PERFORMANCE APPROACH

A5.203.1 Energy Efficiency. Nonresidential, high-rise residential and hotel/motel buildings that include lighting and/or mechanical systems shall comply with Sections A5.203.1.1 and either A5.203.1.2.1 or A5.203.1.2.2.~~meet Sections 1 and 2.~~ Newly constructed buildings as well as additions and alterations are included in the scope of these sections. Buildings ~~that are~~ permitted without lighting or mechanical systems ~~do not need to~~shall comply with Section A5.203.1.1~~1.B. or Section 2,~~ but ~~do need~~ are not required to comply with Sections A5.203.1.1.2 or A5.203.1.2~~1.A.~~

~~1.~~ **A5.203.1.1 Tier 1 and Tier 2 Prerequisites.** Each of the following efficiency measures is required for all applicable components of the building project:

~~A.~~ **A5.203.1.1.1 Outdoor Lighting.** ~~The~~ Newly installed outdoor lighting power shall be ~~equal to~~no greater than 90 percent ~~or less than~~of the Title 24, Part 6 calculated value~~d~~ of allowed outdoor lighting power.

~~B.~~ **A5.203.1.1.2 Service Water Heating in Restaurants.** Newly constructed ~~R~~restaurants 8,000 square feet or greater and with service water heaters rated 75,000 Btu/h or greater shall install ~~either:~~a solar water-heating system with a minimum solar savings fraction of 0.15.

Exceptions:

~~(a~~1.~~)~~ Buildings with ~~A~~a natural gas service water heater with a minimum of 95 percent thermal efficiency~~; or.~~

~~(b~~2.~~)~~ Buildings where greater than 75 percent of the total roof area has annual solar access that is less than 70 percent. Solar access is the ratio of solar insolation including shade to the solar insolation without shade. Shading from obstructions located on the roof or any other part of the building shall not be included in the determination of annual solar access.~~A solar water-heating system with a minimum solar savings fraction of 0.15.~~

A5.203.1.1.3 Functional Areas where Compliance with Residential Lighting Standards is required. For newly constructed high-rise residential dwelling units and hotel and motel guest rooms, indoor lighting shall comply with the applicable requirements in Appendix A4 Residential Voluntary Measures, Division A4.2 – Energy Efficiency, Section A4.203.1.1.3. For additions and alterations to high-rise residential dwelling units and hotel and motel guest rooms, indoor lighting shall comply with the applicable requirements in Appendix A4 Residential Voluntary Measures, Division A4.2 – Energy Efficiency, Section A4.204.1.1.1.

2. **A5.203.1.2 Performance Standard.** Comply with One of the following advanced efficiency levels indicated below.shall be met:

A. **A5.203.1.2.1 Tier 1:** Buildings complying with the first level of advanced energy efficiency shall have an Energy Budget that is no greater than (1) or (2)indicated below, depending on the type of energy systems included in the building project. If the newly constructed building, addition or alteration does not include indoor lighting or mechanical systems, then no additional performance requirements above Title 24, Part 6 are required.

(1.) For building projects that include indoor lighting or mechanical systems, but not both: No greater than 950 percent or less thanof the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission.; or

(2.) For building projects that include indoor lighting and mechanical systems: No greater than 90 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission.

B. **A5.203.1.2.2 Tier 2II:** Buildings complying with the second level of advanced energy efficiency shall have an Energy Budget that is no greater than (1) or (2)indicated below, depending on the type of energy systems included in the building project. If the newly constructed building, addition or alteration does not include indoor lighting or mechanical systems, then no additional performance requirements above Title 24, Part 6 are required.80 percent or less than the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission.

(1.) For building projects that include indoor lighting or mechanical systems, but not both: No greater than 90 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission.; or

(2.) For building projects that include indoor lighting and mechanical systems: No greater than 85 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the Energy Commission.

Note: The Energy Budget is the sum of the TDV energy for energy use components included in the performance compliance approach for the Standard Design Building, as established in the Alternative Calculation Method Reference Manual approved by the Energy Commission, and calculated by the Compliance Software. For Energy Budget calculations high-rise residential and hotel/motel buildings are considered nonresidential buildings.

APPENDIX A5
NONRESIDENTIAL VOLUNTARY MEASURES

DIVISION A5.6 – VOLUNTARY TIERS

SECTION A5.601
CALGREEN TIER 1 AND TIER 2

A5.601.2.2 Energy Performance. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

A5.601.2.3 Tier 1. Comply with the energy efficiency requirements in Section A5.203.1.1 and Section A5.203.1.2.1.

A5.601.3.2 Energy Performance. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

A5.601.3.3 Tier 2. Comply with the energy efficiency requirements in Section A5.203.1.1 and Section A5.203.1.2.2.

APPENDIX A5
NONRESIDENTIAL VOLUNTARY MEASURES

DIVISION A5.6 – VOLUNTARY TIERS

SECTION A5.602
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY [1]	
		CALGreen Tier 1	CALGreen Tier 2
Energy Efficiency			
Performance Requirements			
5.201.1 Scope. Building meets or exceeds the requirements of the California Building Energy Efficiency Standards.[2]	☒	☒[3]	☒[3]
A5.203.1.1.1 Outdoor Lighting. Newly installed outdoor lighting power is no greater than 90 percent of the Title 24, Part 6 calculated value of allowed outdoor lighting power.		☒[3]	☒[3]
A5.203.1.1.2 Service Water Heating in Restaurants. Newly constructed restaurants 8,000 square feet or greater and with service water heaters rated 75,000 Btu/h or greater installed a solar water-heating system with a minimum solar savings fraction of 0.15 or meet one of the exceptions.		☒[3]	☒[3]
A5.203.1.1.3 Functional Areas where Compliance with Residential Lighting Standards is required. For newly constructed high-rise residential dwelling units and hotel and motel guest rooms, indoor lighting complies with the applicable requirements in Appendix A4 Residential Voluntary Measures, Division A4.2 – Energy Efficiency, Section A4.203.1.1.3. For additions and alterations to high-rise residential dwelling units and hotel and motel guest rooms, indoor lighting complies with the applicable requirements in Appendix A4 Residential Voluntary Measures, Division A4.2 – Energy Efficiency, Section A4.204.1.1.1.		☒[3]	☒[3]
A5.203.1.2.1 Tier 1. For building projects that include indoor lighting or mechanical systems, but not both, the Energy Budget is no greater than 95 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building. For building projects that include indoor lighting and mechanical systems, the Energy Budget is no greater than 90 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building.		☒[3]	
A5.203.1.2.2 Tier 2. For building projects that include indoor lighting or mechanical systems, but not both, the Energy Budget is no greater than 90 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building. For building projects that include indoor lighting and mechanical systems, the Energy Budget is no greater than 85 percent of the Title 24, Part 6 Energy Budget for the Proposed Design Building.			☒[3]

1. Measures in this table may be mandatory if adopted by a city, county, or city and county as specified in Section 101.7.
2. These measures are currently required elsewhere in statute or in regulation.

3. Required for this Tier.