

## PRESCRIPTIVE METHOD – 2022 CALGREEN & ENERGY CODE COMPLIANCE CHECKLIST FOR PRE-CHECKED (PC) BUILDING DESIGNS

Division of the State Architect (DSA) documents referenced within this publication are available on the [DSA Forms](#) or [DSA Publications](#) webpage.

The form DSA 403-PC checklist is provided as a guide for submitting complete documents for plan review. Complete submittals must include all applicable items in the *Procedure (PR) 18-02: Pre-Check (PC) CALGreen/Energy Code Compliance Review*. All projects submitted for review must be submitted electronically. This form must be signed by all applicable parties and submitted to the DSA with the plan review documents. Non-conformance with these submittal requirements will result in a failed submittal and rejection of the plan review application. See PR 18-02 for a full explanation of how to complete this form and the PC application requirements.

<b>PROJECT INFORMATION</b>		DSA Application #:
<p>The <b>size</b> of each <b>different</b> building in the application.</p> <p>Building sizes: _____</p>		
<p><b>As applicable, a PDF of each of the following shall be uploaded to the project folder.</b></p>		
<input type="checkbox"/>	Applicable Certificates of Compliance. (See PART 1, SECTION A and B).	
<input type="checkbox"/>	Product manufacturer specifications (cut sheets) for mechanical, electrical, and lighting equipment and controls.	
<input type="checkbox"/>	Completed form DSA 403-PC Prescriptive Checklist.	
<input type="checkbox"/>	<p>Heating and cooling load calculations using ASHRAE Handbook, Fundamentals or ASHRAE based (ACCA, SMACNA etc.) Provide heating and cooling calculations for each size building per climate zone. Confirm that the Total Adjusted System Output is the same or larger than the Total System Load. Backup heat is allowed to be used if the heat pump is designed to meet over 75 percent of the design heating load.</p>	

The plans shall include the following:		Sheet # in Plans:
<input type="checkbox"/>	All the required Energy Code and CALGreen requirements are incorporated into the plans.	NA
<input type="checkbox"/>	Cover Page shall specify the allowed Climate Zones.	
<input type="checkbox"/>	<p>The manufacturer shall place two (2) metal identification labels on relocatable buildings including the following information. See IR 16-1 4.1.1.</p> <ol style="list-style-type: none"> <li>1. The plans shall identify the location of the 2 labels and specify how they are fastened.</li> <li>2. The language for each label shall be shown on the plans for each Climate Zone.</li> <li>3. Requirements for PV and battery systems.</li> </ol>	

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<input type="checkbox"/>	Optional window and doors indicated in the plans including in structural have been included in the compliance report. Architectural plans specify all optional windows and doors in the schedule.	NA
<input type="checkbox"/>	Acceptance Testing note from PR 18-02 is included in the mechanical plans.	

**PART 1: CALIFORNIA ENERGY CODE  
CERTIFICATES OF COMPLIANCE CHECKLIST**

For **conditioned** buildings, provide compliance documentation indicated in Sections A and B.  
For **unconditioned** buildings, provide compliance documentation indicated in Section B.

<b>SECTION A (Conditioned Buildings Only)</b> All forms in Section A are required for conditioned buildings and included on the plans.	<b>Sheet # in Plans:</b>
<b>NRCC-MCH-E Mechanical Systems</b>	
<b>NRCC-CXR-E Building Commissioning</b>	
<b>NRCC-ENV-E Envelope</b>	
<b>NRCC-ELC-E Electrical Power Distribution</b>	
<b>NRCC-LTI-E Indoor Lighting</b>	
<b>NRCC-SAB-E Solar and Battery</b>	

**SECTION B (Conditioned and Unconditioned Buildings)** Provide the applicable Certificate of Compliance on the plans. When compliance documents are not required mark as Not Applicable (N/A).

	<b>Certificate of Compliance</b>	<b>Certificate Name</b>	<b>Sheet # in Plans:</b>
<input type="checkbox"/>	<b>NRCC-LTO-E</b>	<b>Outdoor Lighting</b> (Required if outdoor lighting installed)	
<input type="checkbox"/>	<b>NRCC-PLB-E</b>	<b>Water Heating Systems</b> (Required for unconditioned space and conditioned space if the water heater is allowed)	
<input type="checkbox"/>	<b>NRCC-PRC-E</b>	<b>Process Systems</b> <ul style="list-style-type: none"> <li>Elevator Lighting &amp; Ventilation Controls</li> </ul>	
<input type="checkbox"/>	<b>NRCC-PRC-E</b>	<b>Process Systems</b> <ul style="list-style-type: none"> <li>Computer Rooms</li> </ul>	
<input type="checkbox"/>	<b>NRCC-PRC-E</b>	<b>Process Systems</b> <ul style="list-style-type: none"> <li>Commercial Kitchen Ventilation/Exhaust</li> </ul>	
<input type="checkbox"/>	<b>NRCC-PRC-E</b>	<b>Process Systems</b> <ul style="list-style-type: none"> <li>Laboratory Exhaust/Factory Exhaust &amp; Fume Hood</li> </ul>	

**PART 2: CALIFORNIA ENERGY CODE  
PRESCRIPTIVE AND MANDATORY MEASURES CHECKLIST**

*All sections must be addressed for a complete submittal.*

For additional information, refer to the Energy Efficiency Standards and Nonresidential Manual.

**The following requirements apply only to conditioned buildings.**

### ENVELOPE REQUIREMENTS

*Buildings must meet all applicable prescriptive requirements of Energy Code 140.3(a)*

#### Envelope

Provide architectural details indicating the R-values for the raised floor, walls, and ceiling/roof. Include irregularities (e.g., openings, bump-outs, change in slope, headers, seismic joints, mod-line, etc.) in the details.

All architectural details to include insulation and indicate location, thickness, and type. Energy Code 140.3 lists the required U-factor for raised floor, walls, and ceiling/roof.

Reference Appendices in the Energy Code, Joint Appendix JA4 must be used to determine the required R-value of the insulation to meet the U-factors required by Energy Code 140.3 for the assembly.

If there are areas where the required insulation cannot be installed, then the assembly calculator that is incorporated into the approved energy modeling software must be used.

If using continuous insulation, the insulation must not be interrupted by framing and provides a continuous insulating layer. If continuous insulation is installed with z-clips 24" OC or less, then JA Table 4.3.14 must be used in combination with other tables using Equation 4-1 and 4-2 to account for z-clip impact on overall wall assembly U-factor

Windows – All walls shall be assumed to be west facing and shall comply with Energy Code 140.3(a) 5.A.

Skylights/Solatube - Have an area no greater than 5 percent of the gross exterior roof area Skylight Roof Ratio

The required U-factor for walls, roofs, and raised floors are found in Table 140.3. The [Reference Appendices JA4](#) lists how much insulation is needed to meet the U-factor's.

Provide longitudinal and transverse sections illustrating all the insulating layers from foundation to wall to roof. Unconditioned spaces on the exterior of the thermal envelope shall be included in the illustration.

Sheet # in Plans:

Check one of the following:

<input type="checkbox"/>	The building is climate zone-specific, and the envelope requirements of Table 140.3-B are used for each climate zone and specified in the plans. Sheet # in Plans:
<input type="checkbox"/>	The building is for use in all climate zones and the envelope requirements of Table 140.3-D are used and specified in the plans. Sheet # in Plans:

**The following requirements apply only to conditioned buildings.**

### ENVELOPE – AIR SEALING

Demonstrate how the relocatable PCs comply with 110.7. Specifying potential sources of air leakage and the type of air sealing products that will be used.

Demonstrate how the non-relocatable PCs comply with 140.3(a)9

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**HVAC REQUIREMENTS FOR VENTILATION & INDOOR AIR QUALITY***Buildings must meet all applicable Mandatory Measures of Energy Code 120.1**Provide the following in the mechanical plans.***Outdoor Air**

For each HVAC system specify the Total Outdoor Air in CFM.

For spaces with an economizer also specify the outdoor air in CFM for spaces with Demand Control Ventilation (DCV) or Occupant Sensing Control Devices (OSVC).

For each size building an air-distribution system design shall be shown on the plans in accordance with 120.1(a)2. Design to include optional rooms.

For each type of HVAC system provide a fully dimensioned supply and return detail to match manufacturer dimensions of the equipment.

Indicate on the mechanical plans the allowed tonnage specified in the compliance documents for each size building.

Installed filter shall have designated efficiency equal or greater than MERV 13 and shall be 2-inch minimum depth 120.1(c)1.

Provide a note that the thermostat will be programmed after placement and prior to occupancy to ensure the minimum air rate will be supplied to the space at all usually occupied times and programmed to provide a pre-occupancy purge one hour prior to the building being normally occupied 120.1(d)1.

**HVAC CONTROLS**

Specify the HVAC sequence of operation indicating compliance with 120.1(d). Include Pre-occupancy purge, and economizer mode.

For spaces with DCV or OSVC include the control strategy that resets temperature setpoints and/or ventilation air with 120.1(d).

When an economizer is installed DCV is required in the following locations: Daycare, classrooms, lecture halls, and gymnasiums per 120.1(d)3 and 4. Exception is for spaces with an area of less than 150 square feet, or a design occupancy of less than 10 people.

Mechanical plans to include:

- Location of Co2 sensor in each space,
- Make and model number of the Co2 sensor,
- CO2 sensors shall display the ppm.

When an economizer is installed OSVC is required in the following locations: Offices, multipurpose rooms of less than 1,000 sf, music/theater/dance, break rooms, and conference rooms per 120.1(d)5 and 120.2(e)3.

Mechanical plans to include:

- Location of OSVC in each space,
- Make and model number of the control device.

Fault Detection and Diagnostics (FDD) – must be installed for cooling systems that are greater than 33,000 Btu/hour (2.75 Tons) and have installed an air economizer.

- Plans to specify make and model number of the FDD device.

**2022 CALGREEN & ENERGY CODE COMPLIANCE CHECKLIST FOR PRE-CHECKED (PC) BUILDING DESIGNS****PRESCRIPTIVE COMPLIANCE FOR SPACE CONDITIONING SYSTEMS**

*Load calculations for proper equipment sizing per Energy Code Section 140.4(b) may be requested by DSA for plan approval.*

**Space Conditioning Systems**

Economizers – If the cooling capacity is over 33,000 Btu/hour (2.75 Tons) an economizer is required, or the efficiency of the HVAC equipment must be improved Per Table 140.4-D. Check applicable:

<input type="checkbox"/>	<p>Economizer Installed:</p> <ul style="list-style-type: none"> <li>List the model number of the economizer in the plans.</li> <li>Economizer must be programmed to the temperature in Table 140.4-E. Provide Table 140.4-E in the mechanical plans.</li> </ul> <p>Sheet # in Plans:</p>
<input type="checkbox"/>	<p>Improved Efficiency of HVAC Equipment</p> <ul style="list-style-type: none"> <li>List the equipment installed on the plans.</li> <li>Include Table 140.4-D on the mechanical plans.</li> </ul> <p>Sheet # in Plans:</p>

**INTERLOCK CONTROLS**

<input type="checkbox"/>	<p>Buildings containing operable windows and doors without automatic closing devices must have interlock controls that disable or reset the temperature setpoint per section 140.4(n). Specify interlock controls and include wiring diagram in plans.</p> <p>Sheet # in Plans:</p>
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**The following requirements apply to both conditioned and unconditioned buildings.**

**LIGHTING CONTROL ENERGY CODE 130.1**

<input type="checkbox"/>	<p>Include luminaire schedule, lighting control diagram, and sequence of operations that demonstrate compliance with the requirements for Energy Code section 130.1.</p> <p>Sheet # in Plans:</p>
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**SOLAR AND BATTERY ENERGY CODE 110.10 & 140.10**

<input type="checkbox"/>	<p>Solar and battery requirements for each configuration have been included on plans.</p> <p>Sheet # in Plans:</p>
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**EQUIPMENT MANUALS**

<input type="checkbox"/>	<p>Provide note on plans that upon site placement or site construction, the operation and maintenance documentation for all mechanical and lighting systems and controls shall be provided by the building manufacturer, or the general contractor for the permanent relocatable building and delivered to the owner.</p> <p>Sheet # in Plans:</p>
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**2022 CALGREEN & ENERGY CODE COMPLIANCE CHECKLIST FOR PRE-CHECKED (PC) BUILDING DESIGNS****PART 3: CALGREEN MANDATORY MEASURES CHECKLIST***All sections must be addressed for a complete submittal.*

For information on the CALGreen Mandatory Measures refer to DSA GL-4: CALGreen Code.

**WATER EFFICIENCY CALGREEN 5.3****Water Conserving Plumbing Fixtures and Fittings.** Check one:

<b>5.303.3</b>	<input type="checkbox"/>	There are no plumbing fixtures provided in the project.
	<input type="checkbox"/>	Plumbing fixture flow and flush rates meet the requirements of 5.303.3 and are shown on plumbing fixture schedule. Sheet # in Plans:

**MATERIAL CONSERVATION & RESOURCE EFFICIENCY CALGREEN 5.4****Water Resistance and Moisture Management.** For all buildings, provide:

<b>5.407.2.2.1</b>	<input type="checkbox"/>	Plans and finish schedule show the location of the minimum required interior door protection and indicate the non-absorbent floor and wall finishes to be installed 2 feet around and perpendicular to the primary entrances. Sheet # in Plans:
	<input type="checkbox"/>	Plans and sections indicate the minimum exterior door protection with the location and details for a 4 feet deep awning, roof overhang, recessed area, or other appropriate method at the primary entrances. Sheet # in Plans:
<b>5.407.2.2.2</b>	<input type="checkbox"/>	Details indicate flashings integrated with a drainage plane. Sheet # in Plans:

**Construction Waste Management.** Check one:

<b>5.408.1</b>	<input type="checkbox"/>	For all factory/plant construction or assembly work provide in the drawings a Construction Waste Management Plan for the factory in accordance with the requirements of CALGreen. (See 5.408.1 for Sample CWM Plan). Sheet # in Plans:
	<input type="checkbox"/>	For all site specific work, I have provided a Construction Waste Management Plan in the specifications or plans to be filled out by the General Contractor for the project in accordance with the requirements of CALGreen. (See 5.408.1 for Sample CWM Plan). Sheet # in Plans:

**ENVIRONMENTAL QUALITY CALGREEN 5.5****Covering of Mechanical Equipment.** Provide for conditioned buildings.

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<b>5.504.3</b>	<input type="checkbox"/>	At the time of rough installation, during storage in the factory or on the construction site, during shipment (if applicable) and until final startup of the heating cooling and ventilating equipment, all, duct and other related distribution component openings and mechanical equipment shall be protected to reduce the amount of dust, water and debris which enter the system.  Specification Section or Sheet # in Plans:
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**Pollutant Control.** Identify that finish materials meet the following. If not provided in the project, mark with "N/A."

<b>5.504.4.1</b>	<input type="checkbox"/>	Adhesive, sealants and caulks comply with VOC limits in Tables 5.504.4.1 and 5.504.4.2.  Sheet # in Plans:
<b>5.504.4.3</b>	<input type="checkbox"/>	Paints and coatings comply with VOC limits in Table 5.504.4.3 and requirements of 5.504.4.3.  Sheet # in Plans:
<b>5.504.4.4</b>	<input type="checkbox"/>	Carpet systems meet testing and product requirements of Table 5.504.4.4. Carpet cushion meets Carpet and Rug Institute's Green Label Program. Carpet adhesive complies with VOC limits in Table 5.504.4.1.  Sheet # in Plans:
<b>5.504.4.5</b>	<input type="checkbox"/>	Hardwood plywood, particleboard, and medium density fiberboard composite wood products meet formaldehyde requirements and limits.  Sheet # in Plans:
<b>5.504.4.6</b>	<input type="checkbox"/>	Resilient flooring systems meet testing and product requirements.  Sheet # in Plans:

**Filter Specification.** Provide for conditioned buildings.

**Indoor Moisture Control.** Provide for all buildings.

<b>5.505.1</b>	Vented or unvented attics moisture control. Check one:	
	<input type="checkbox"/>	The attic is unvented and meets the requirements of CBC 1202.3 for unvented attics. Sheet # in Plans:
	<input type="checkbox"/>	The attic is vented and meets the requirements of CBC 1202.3 for vented attics. Sheet # in Plans:
	Moisture control at raised floor foundation. Check if applicable.	
	<input type="checkbox"/>	Building has raised floor foundation and requires underfloor ventilation (if applicable). Meet requirements of CBC 1202.4.  Sheet # in Plans:

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<b>Co2 Monitor: Required in all classrooms</b>		
<b>5.506.3</b>	<input type="checkbox"/>	All classrooms to have a Co2 monitor that meets CalGreen requirements of 5.506.3 Sheet # in Plans:

<b>Exterior Noise Transmission.</b> Check one.		
<b>5.507.4.1</b>	<input type="checkbox"/>	Exterior wall and roof ceiling assemblies meet minimum 50 STC and windows meet minimum 40 STC. Wall Tested Detail/Sheet #: _____ Roof Tested Detail/Sheet #: _____
	<input type="checkbox"/>	A note on the <b>coversheet</b> that states: "This PC will not be placed on any campus in any of the following locations: 1. Within the 65 CNEL noise contour of an airport; 2. Within the 65 CNEL or Ldn noise contour of a freeway, expressway, railroad, or industrial source guideway; 3. Where exposed to noise level of 65dB Leq-1-hr during any hour of operation."

<b>Interior Sound Transmission.</b> Provide if applicable.		
<b>5.507.4.3</b>	<input type="checkbox"/>	Interior walls separating classrooms, and interior walls separating classrooms from bathrooms shall meet minimum 40 STC. Wall Tested Detail/Sheet #:

**COMPLIANCE STATEMENT BY ARCHTTECT/ENGINEER IN GENERAL RESPONSIBLE CHARGE*****SIGNATURE REQUIRED BELOW***

*As the architect/engineer in general responsible charge, I affirm that I have coordinated the construction documents with the energy compliance documentation and the mechanical and lighting systems design, and that the applicable mandatory measures for nonresidential buildings of the current CALGreen Code (Title 24, Part 11) and Energy Code (Title 24, Part 6) are incorporated in the design of the building and documented in the construction documents and specifications for the project.*

Print Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Work Phone #: \_\_\_\_\_ License #: \_\_\_\_\_