



Proposed Energy Provisions of the California Green Building Standards Code

**California Code of Regulations, Title 24, Part 11
(also known as CALGreen)**

October 10, 2012



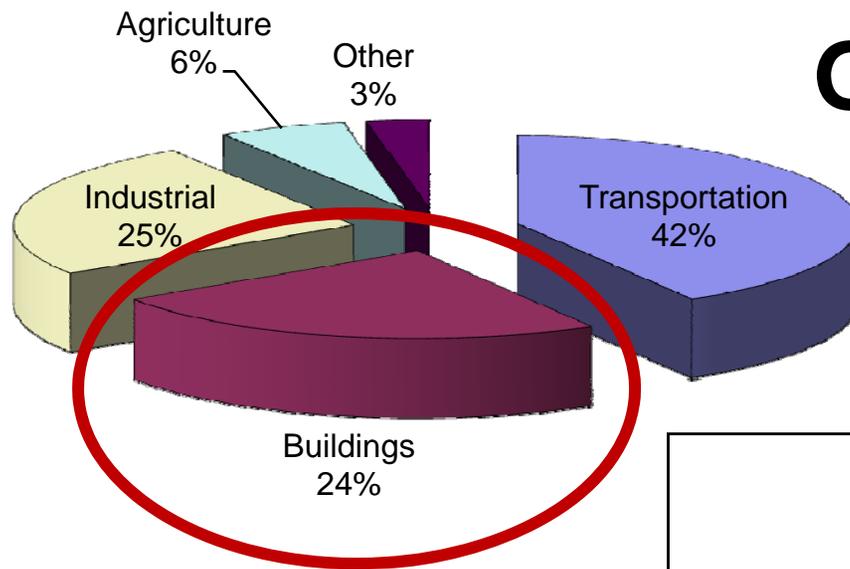
Policy Drivers for Proposed Energy Provisions of CALGreen

- Zero Net Energy Buildings
 - Newly constructed homes to be ZNE by 2020
 - Newly constructed commercial buildings to be ZNE by 2030
- Energy Efficiency 1st in the Loading Order
- Reduce Greenhouse Gas Emissions
 - 2006 AB32 California Global Warming Solutions Act
 - 2007 Integrated Energy Policy Report
 - 2008 Energy Action Plan
 - 2008 AB32 Scoping Plan
 - 2008 CA Long Term Energy Efficiency Strategic Plan
 - 2010 Governor Brown's Clean Energy Jobs Plan
 - 2010 Clean Energy Future Initiative
 - 2012 Governor Brown's Executive Order

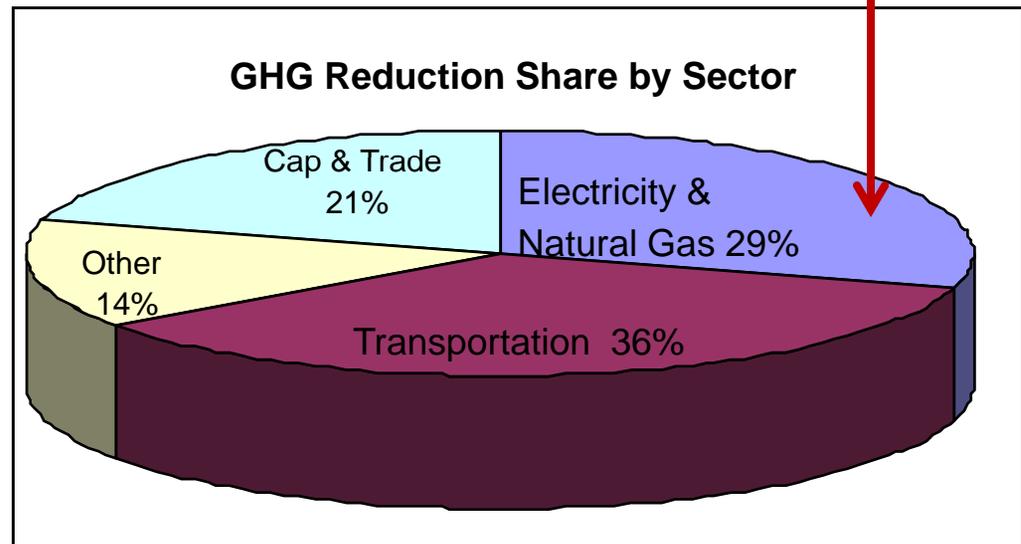


Importance of Building Sector in GHG Solutions

California GHG Emissions
546 Mtonne CO₂e (2004)



70% of this is residential & commercial buildings





Proposed Energy Provisions of CALGreen - Why

- Energy chapter of the California Green Building Standards (Title 24, Part 11)
- New construction program targets for utility incentive programs
- Energy basis of green building codes adopted by local jurisdictions
- Measures for migration to the Building Energy Efficiency Standards (Title 24, Part 6)



Proposed Energy Provisions of CALGreen Voluntary Appendix A4 Newly Constructed Residential

Recommended Prerequisites

- Whole Building Energy Design Rating
- Quality Insulation Installation (QII)
- High Efficacy Indoor Lighting
- High Efficacy Outdoor Lighting

Tier I

- 85% of Part 6 Energy Budget

Tier II

- 70% of Part 6 Energy Budget



Whole Building Energy Design Rating

~ 45% of
energy use
regulated
by Part 6

Space Cooling
Space Heating
Water Heating

Refrigerator
Dishwasher
Range/Oven
Clothes Washer
Dryer

Indoor Lighting
Outdoor Lighting
Miscellaneous Plug Loads

~ 55% of
energy
use not
regulated
by Part 6



Proposed Energy Provisions of CALGreen Voluntary Appendix A4 Additions and Alterations to Existing Residential Buildings

Recommended Prerequisites

- High Efficacy Indoor Lighting
- High Efficacy Outdoor Lighting

Tier I

- 95% of Energy Budget – one mechanical system
- 90% of Energy Budget – two or more mechanical systems

Tier II

- 90% of Energy Budget – one mechanical system
- 85% of Energy Budget – two or more mechanical systems

If the addition or alteration changes only the envelope with no changes to any mechanical system, only the prerequisites are recommended.



Proposed Energy Provisions of CALGreen Voluntary Appendix A5 All Nonresidential Buildings

Recommended Prerequisites

- 10% Reduction in Outdoor Lighting Power
- High-rise Multifamily Dwelling Units and Hotel/Motel Guest Rooms Comply with Residential Indoor Lighting in Voluntary Appendix A4
- Service Water Heating in Large Restaurants – 15% Solar Fraction or 95% water heater efficiency

Tier I

- 95% of Energy Budget – indoor lighting OR mechanical
- 90% of Energy Budget – indoor lighting AND mechanical

Tier II

- 90% of Energy Budget – indoor lighting OR mechanical
- 85% of Energy Budget – indoor lighting AND mechanical

If the permit is only for the building envelope, then only the prerequisites are recommended.



What's Next If Adopted

- Post-Adoption rulemaking activities are merged with Parts 1 and 6 previously adopted by the Energy Commission
- Combined rulemaking package for Parts 1 and 6 and the energy provisions of Part 11 will be submitted to the California Building Standards Commission for approval at its December meeting
- All provisions of Part 11, including energy, which are approved by California Building Standards Commission are merged