

AN ORDINANCE OF THE COUNCIL OF THE CITY OF GLENDALE AMENDING SECTION 202, 301.1, ADDING SECTIONS 301.2, 4.106.4, 4.203, 4.205, 4.207, 4.208, 4.211, 4.509, 5.203, 5.205, 5.208, 5.211 AND RESERVING SECTIONS 4.202, 4.204, 4.206, 4.209, 4.210, 5.202, 5.204, 5.206, 5.207, 5.209, 5.210 OF THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE, ADOPTED AS VOLUME IX, OF THE GLENDALE BUILDING AND SAFETY CODE, 2011.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF GLENDALE:

SECTION 1. Section 202 of Volume IX of the Glendale Building and Safety Code, 2011, the definition for LOW-RISE RESIDENTIAL is hereby amended to read as follows. All other definitions in Section 202 shall remain without change.:

SECTION 202

DEFINITIONS

LOW-RISE RESIDENTIAL. A building that is of Occupancy R and is six stories or less, or that is a one- or two-family dwelling or townhouse.

SECTION 2. Sections 4.303.1, 4.303.2, and 4.303.3 listed in the Residential Occupancies Application Checklist in Section A4.602 are hereby adopted by reference and are hereby incorporated herein as if fully set forth.

SECTION 3. Section 301.1 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby amended to read as follows:

301.1 Scope. Buildings and structures shall be designed to include the green building measures indicated in Section 301.2.

SECTION 4. Section 301.2 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**301.2 Applicability.** Buildings and structures shall comply with all the requirements specified in this Section relative to occupancy type, size, number of stories, and number of units.

**301.2.1 Low-rise residential buildings.** Newly constructed low-rise residential buildings as defined in Chapter 2 of this Code shall comply with all applicable requirements of Chapter 4, Residential Mandatory Measures.

**301.2.2 Non-low-rise residential buildings.** Newly constructed buildings other than those defined in Chapter 2 of this Code as low-rise residential buildings shall comply with all applicable requirements of Chapter 5, Nonresidential Mandatory Measures.

**301.2.3 Single family dwellings greater than 5,000 square feet.** In addition to the provisions as outlined in Section 301.1 of this code, any newly constructed single family dwellings greater than 5,000 square feet not including the garage area shall comply with CALGreen Tier 1 pursuant to Section 305.1.1.

**SECTION 5.** Section 4.106.4 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**4.106.4 Water permeable surfaces.** Permeable paving is utilized for the parking, walking or patio surfaces in compliance with the following.

Not less than 20 percent of the total on-grade, residential uncovered parking, walking or patio surfaces shall be permeable.

**Exceptions:**

1. The primary driveway, primary entry walkway and entry porch or landing shall not be included when calculating the area required to be a permeable surface.

2. Required accessible routes for persons with disabilities as required by *California Code of Regulations*, Title 24, Part 2, Chapter 11A and/or Chapter 11B as applicable.

**SECTION 6.** Section 4.202 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 4.202**

**DEFINITIONS**

**(Reserved)**

**SECTION 7.** Section 4.203 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 4.203**

**PERFORMANCE APPROACH**

**4.203.1 Energy performance.** When using an Alternative Calculation Method (ACM) approved by the California Energy Commission, calculate each building's energy and CO<sub>2</sub> emissions, and compare it to the standard or "budget" building to achieve the following:

Exceed the *California Energy Code* based on the 2008 energy standards requirements by 15 percent. Field verify and document the measures and calculations used to reach the desired level of efficiency following the requirements specified in the Title 24 Reference Appendices.

**SECTION 8.** Section 4.204 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 4.204**

**PRESCRIPTIVE APPROACH**

(Reserved)

**SECTION 9.** Section 4.205 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 4.205**

**BUILDING ENVELOPE**

**4.205.1 Radiant roof barriers.** Radiant roof barrier shall be installed in all new buildings. The radiant barrier must be tested according to ASTM C-1371-98 or ASTM E 408-71(2002) and must be certified by the Department of Consumer Affairs. Radiant barriers must also meet installation criteria specified in Section RA4.2.2 of the *California Energy Commission Residential Appendices*.

**SECTION 10.** Section 4.206 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 4.206**

**AIR SEALING PACKAGE**

(Reserved)

**SECTION 11.** Section 4.207 of Volume IX of the Glendale Building and Safety Code, 2011, is added to read as follows:

**SECTION 4.207**

**HVAC DESIGN, EQUIPMENT AND INSTALLATION**

**4.207.1 Gas-fired heating equipment.** Gas-fired (natural or propane) space heating equipment requires an Annual Fuel Utilization Ratio (AFUE) of .90 or higher.

**4.207.2 Cooling equipment.** When climatic conditions necessitate the installation of cooling equipment, select cooling equipment with a Seasonal Energy Efficiency Ratio (SEER) higher than 13.0 and an Energy Efficiency Ratio (EER) of at least 11.5.

**SECTION 12.** Section 4.208 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 4.208**

**WATER HEATING DESIGN,  
EQUIPMENT AND INSTALLATION**

**4.208.1 Tank type water heater efficiency.** The Energy Factor (EF) for a gas-fired storage water heater shall be higher than .60.

**4.208.2 Tankless water heater efficiency.** The Energy Factor (EF) for a gas-fired tankless water heater shall be .80 or higher.

**SECTION 13.** Section 4.209 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 4.209**

**LIGHTING**

**(Reserved)**

**SECTION 14.** Section 4.210 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 4.210**

**APPLIANCES**

**(Reserved)**

**SECTION 15.** Section 4.211-of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 4.211**

**RENEWABLE ENERGY**

**4.211.1 Space for future solar installation.** A minimum of 250 square feet of unobstructed roof area facing within 30° of south is provided for future solar collector or photovoltaic panels. Rough-in penetrations through the roof surface within 24 inches (610 mm) of the boundary of the unobstructed roof area are provided for electrical conduit and water piping.

**Exceptions:**

1. For roofs with an area of less than 1000 square feet, the unobstructed space may be reduced to 25% of the roof area.
2. Buildings designed and constructed with a solar photovoltaic system or an alternate system with means of generating electricity at time of final inspection are exempt from this requirement.
3. Where it is not feasible to provide one contiguous area due to the roof configuration, two unobstructed roof areas with a minimum combined area of 250 square feet may be provided.
4. Buildings designed with a green roof making it unfeasible to provide this area are exempt from this requirement.

**4.211.2 Future access for solar system.** A minimum one-inch (25.4 mm) electrical conduit is provided from the electrical service equipment to an accessible location in the attic or other location approved by the enforcing agency.

**SECTION 16.** Section 4.509 Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 4.509**

**NATURAL LIGHT AND VENTILATION**

**4.509.1 Natural light.** The minimum net glazed area shall not be less than 10 percent of the floor area of the room served.

**4.509.2 Natural ventilation.** The minimum openable area to the outdoors shall be 5 percent of the floor area being ventilated.

**SECTION 17.** Section 5.202 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 5.202**

**DEFINITIONS**

(Reserved)

**SECTION 18.** Section 5.203 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 5.203 PERFORMANCE APPROACH**

**5.203.1 Energy performance.** When using an Alternative Calculation Method approved by the California Energy Commission, calculate each nonresidential building's TDV energy and CO<sub>2</sub> emissions and compare it to the standard or "budget" building.

**5.203.1.1 Energy efficiency - 15 percent above Title 24, Part 6.** Exceed *California Energy Code* requirements, based on the 2008 *Energy Efficiency Standards*, by 15 percent. Field verify and document the measures and calculations

used to reach the desired level of efficiency following the requirements specified in the Title 24 Reference Appendices.

**SECTION 19.** Section 5.204 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 5.204**

**PRESCRIPTIVE APPROACH**

**(Reserved)**

**SECTION 20.** Section 5.205 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 5.205 BUILDING ENVELOPE**

**5.205.1 Radiant roof barriers.** Radiant roof barrier shall be installed in all new buildings. The radiant barrier must be tested according to ASTM C-1371-98 or ASTM E 408-71(2002) and must be certified by the Department of Consumer Affairs.

**SECTION 21.** Section 5.206 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 5.206**

**AIR SEALING PACKAGE**

**(Reserved)**

**SECTION 22.** Section 5.207 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 5.207**

**HVAC DESIGN, EQUIPMENT AND INSTALLATION**

**(Reserved)**

**SECTION 23.** Section 5.208 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 5.208**

**WATER HEATING DESIGN,  
EQUIPMENT AND INSTALLATION**

**5.208.1 Tank type water heater efficiency.** The Energy Factor (EF) for a gas-fired storage water heater shall be higher than .60.

**5.208.2 Tankless water heater efficiency.** The Energy Factor (EF) for a gas-fired tankless water heater shall be .80 or higher.

**SECTION 24.** Section 5.209 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 5.209**

**LIGHTING**

(Reserved)

**SECTION 25.** Section 5.210 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby reserved:

**SECTION 5.210**

**APPLIANCES**

(Reserved)

**SECTION 26.** Section 5.211 of Volume IX of the Glendale Building and Safety Code, 2011, is hereby added to read as follows:

**SECTION 5.211**

**RENEWABLE ENERGY**

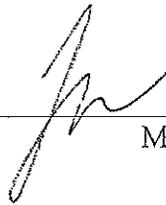
**5.211.4 Prewiring for future solar.** Install conduit from the building roof or eave to a location within the building identified as suitable for future installation of a charge controller (regulator) and inverter.

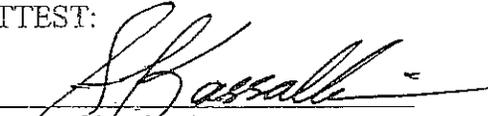
**5.211.4.1 Off-grid prewiring for future solar.** If battery storage is anticipated, conduit should run to a location within the building that is stable, weather-proof, insulated against very hot and very cold weather and isolated from occupied spaces.

**SECTION 27. Effective Date.** This ordinance shall become effective and be in full force and effect thirty days after the passage hereof.

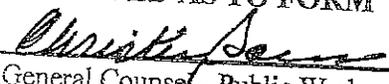
**SECTION 28. Severability.** If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid by a court of competent jurisdiction, that invalidity shall not affect other provisions or applications of this Ordinance that can be given effect without the invalid provision of application, and to this end the provisions of this Ordinance are severable.

Passed by vote of the Council of the City of Glendale on the 7<sup>th</sup> day of June, 2011.

  
\_\_\_\_\_  
Mayor

ATTEST:  
  
\_\_\_\_\_  
City Clerk

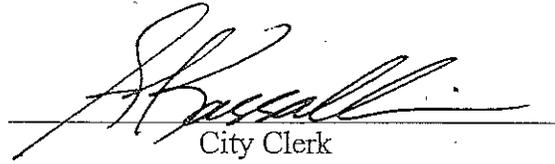
STATE OF CALIFORNIA )  
COUNTY OF LOS ANGELES ) SS.  
CITY OF GLENDALE )

APPROVED AS TO FORM  
  
\_\_\_\_\_  
General Counsel - Public Works  
Date: 6-2-11

I, ARDASHES KASSAKHIAN, City Clerk of the City of Glendale, certify that the foregoing Ordinance No. 5736 was passed by the Council of the City of

Glendale, California, at a regular meeting held on the 7<sup>th</sup> day of  
June, 2011, and that the same was passed by the following vote:

Ayes: Manoukian, Najarian, Weaver, Friedman  
Noes: None  
Abstain: None  
Absent: Quintero

  
\_\_\_\_\_  
City Clerk