

# Memorandum

To: ROBERT OGLESBY  
Executive Director

Date: January 13, 2012

Telephone: (916) 654-5013

From: **California Energy Commission** - Panama Bartholomy, Deputy Director  
Efficiency and Renewable Energy Division  
1516 Ninth Street  
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Subject: **POSSIBLE APPROVAL OF THE CITY OF SANTA MONICA'S LOCALLY ADOPTED BUILDING ENERGY STANDARDS TO REQUIRE GREATER ENERGY EFFICIENCY THAN THE 2008 BUILDING ENERGY EFFICIENCY STANDARDS**

## Summary of Item

The California Public Resources Code establishes a process that allows cities or counties to adopt and enforce locally adopted energy standards that are more stringent than the statewide standards. This process, described in Section 25402.1(h)(2) and the *2008 Building Energy Efficiency Standards*, Title 24, Part 1, Section 10-106 (Standards), allow cities or counties to adopt new versions of the Standards before their statewide effective date (early adoption), require additional energy efficiency measures, or set more stringent energy budgets. The governing body of the city or county is required to make a determination that the standards are cost effective and adopt the findings at a public meeting. The city or county is required to file this determination of cost effectiveness with the California Energy Commission. The Energy Commission must find that the standards will require the diminution of energy consumption levels permitted by the current Standards. The proposed local ordinance cannot be enforced until it is approved by the Energy Commission.

On November 22, 2011, the City Council of the City of Santa Monica submitted an application for approval for their local energy standards (Ordinance Number 2328) which will meet or exceed the *2008 Building Energy Efficiency Standards (Title 24, Part 6 of the California Building Standards)*. The ordinance requires the following energy efficiency measures beyond those in Title 24, Part 6..

Newly constructed residential and nonresidential buildings must exceed the building energy efficiency requirements of Title 24, Part 6 by 15 percent.

The City of Santa Monica continues its ordinance that the Energy Commission approved on September 20, 2001 that requires that heated swimming pools installed in conjunction with newly constructed residential and nonresidential buildings use renewable energy such that:

- The surface area of the solar collector is no less than 70 percent of the surface area of the pool,

- Renewable energy provides at least 60 percent of the total heating requirements, and
- Electric resistance heating not directly powered by renewable energy cannot be used to heat the pool water.

The previous ordinance is modified to waive the requirement to use renewable energy to heat pools in situations where solar pool heating is technically infeasible due to a lack of unshaded area for solar collectors, a lack of adequate roof space, additional water pumping energy use that exceeds half of the energy derived from the renewable energy system or other similar conditions.

The City of Santa Monica requires that the installation of a water heater in any newly constructed or existing residential or nonresidential building must include the insulation of all exposed and accessible hot water distribution and recirculation system piping from the water heater to the end-use fixtures. The insulation must meet the insulation thickness requirements for hot water pipes in Title 24, Part 6 (note that Part 6 only requires this insulation thickness for pipes near the water heater, whereas the ordinance requires it throughout the whole length of hot water pipes).

The City of Santa Monica requires that all newly constructed residential and nonresidential buildings provide a solar ready roof area to facilitate the installation of future solar energy equipment. Single-family dwellings must provide a minimum of 250 square feet and all other buildings must provide a minimum of 30 percent of the total roof area. This roof area shall have the following requirements:

- Either flat or south facing with a 30 percent roof slope (4 units vertical and 12 units horizontal),
- Unshaded,
- Free from obstructions,
- In contiguous areas of no less than 100 square feet, and
- Not otherwise required to be left open in order to ensure adequate fire or life-safety protection, including but not limited to required clearances for firefighting access.

The solar ready roof requirements can be waived if a solar electric system of any size is actually installed; or if the roof of the building is to be used for vehicular traffic or parking; or if compliance is technically infeasible due to lack of sufficient unshaded area based on surrounding condition, lack of roof space or other similar conditions.

The City of Santa Monica provided a cost effectiveness analysis for the requirements to be 15% more energy efficient than Title 24, Part 6 and to install hot water pipe insulation. The City concluded that the requirements for solar-ready construction would not impose a significant cost.

Energy Commission staff has found that the application meets all requirements under Public Resources Code Section 25402.1(h)(2) and Section 10-106 of Title 24, Part 1 and recommends it for approval.

The City of Santa Monica has made a written commitment to enforce compliance with their locally adopted energy standards and Title 24, Part 6.

The complete application including the full proposed ordinance and cost effectiveness analysis will be made available on the Energy Commission web site upon Energy Commission approval of the proposed ordinance.

#### Project Manager

Joseph M. Loyer, High Performance Buildings and Standards Development Office.

#### Summary of Staff Position

Energy Commission staff has found that the application meets all requirements under Public Resources Code Section 25402.1(h)(2) and Section 10-106 of Title 24, Part 1. Energy Commission staff believes that the City of Santa Monica is to be commended for seeking to achieve the energy savings that result from their local energy ordinance.

The City of Santa Monica has been informed that the approved ordinance will be enforceable while the *2008 Building Energy Efficiency Standards (Title 24, Part 6 of the California Building Code)* is enforced and upon implementation of new adopted State Standards, the City of Santa Monica will be required to resubmit an application for local energy standards under Public Resources Code Section 25402.1(h)(2) and Section 10-106 of Title 24, Part 1.

#### Oral Presentation Outline

Energy Commission staff will provide a brief summary and be available to answer questions if any arise.

#### Business Meeting Participants

Joseph M. Loyer, High Performance Buildings and Standards Development Office.

#### Commission Action Requested

Approval of the City of Santa Monica's locally adopted energy standards that result in more stringent energy requirements than the *2008 Building Energy Efficiency Standards*.

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Panama Bartholomy, Deputy Director  
Efficiency and Renewable Energy Division

