

Memorandum

To: ROBERT P. OGLESBY
Executive Director

Date: March 29, 2016

Telephone: (916) 654-5013

From: **California Energy Commission** - Dave Ashuckian, Deputy Director
1516 Ninth Street
Sacramento CA 95814-5512
Energy Efficiency Division

Subject: **POSSIBLE APPROVAL OF THE CITY OF SANTA MONICA'S LOCAL BUILDING ENERGY STANDARDS: ORDINANCE, SECTIONS 4.201.3,4,5 and 5.201.3,4**

Summary of Item

The California Public Resources Code establishes a process that allows local governmental agencies, such as cities or counties, to adopt and enforce local energy standards that are more stringent than, or equivalent to but different from, the statewide standards. This process, described in Public Resources Code Section 25402.1, Subdivision (h)(2), and the *2013 Building Energy Efficiency Standards* (Standards) provided in California Code of Regulations, Title 24, Part 1, Chapter 10, Section 10-106, requires local governmental agencies to apply to the California Energy Commission for approval of these local energy standards.

The local governmental agency must submit an application to the Executive Director of the Energy Commission, and this application must be approved, before the local energy standards may be enforced. This application must contain: (1) the proposed energy standards; (2) the local governmental agency's energy-savings and cost-effectiveness findings and supporting analyses; (3) a statement or finding by the local governmental agency that the local energy standards will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6; and (4) a finding or determination required under the California Environmental Quality Act. (Standards, § 10-106.)

In reviewing this application, the Energy Commission must find that the standards will require the diminution of energy consumption levels permitted by the current Standards and that the local governmental agency's governing body, at a public meeting, adopted its determination that the standards are cost effective. (Pub. Resources Code, § 25402.1, subd. (h)(2); Standards, § 10-106.)

The details of the application and staff's review of the application are attached.

Summary of Staff's Application Review

The complete application, including the local ordinance and cost effectiveness analysis, will be made available on the Energy Commission website as part of the back-up materials for the proposed agenda item when presented to the Energy Commission for action. The application will also be posted on the web-page for Local Ordinances Exceeding the *2013 Building Energy Efficiency Standards* upon Energy Commission approval of the local ordinance. Currently the submitted application is docketed on the Energy Commission's website under 15-BSTD-03 for a 60-day public comment period, which concluded on March 19, 2016.

As detailed in the attachment, staff reviewed the City of Santa Monica's application for approval of its local energy standards enumerated in the Ordinance, Sections 4.201.3,4,5 and 5.201.3,4. Staff found that the application contains all of the application components required by Section 10-106, Subdivision (b) of the Standards. Specifically, the City of Santa Monica's application contains:

- The City of Santa Monica's proposed energy standards;
- The City of Santa Monica's findings and supported analysis on the energy savings and cost effectiveness of the proposed energy standards;
- The City of Santa Monica's finding that the local energy standards will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6; and
- The City of Santa Monica's CEQA determination.

In addition, staff reviewed the application to determine whether the locally adopted energy standards will require the diminution of energy consumption levels permitted by the current Standards. As part of the ordinance, the City of Santa Monica is requiring all new construction to install a solar electric photovoltaic (PV) system, not simply provide a solar ready area. In addition, at least 75 percent of the energy required to heat pool water for all newly constructed pools shall be provided by renewable sources such as solar PV. Staff also confirmed that the local governmental agency's governing body, at a public meeting, adopted its determination that the standards are cost effective.

Project Manager

Ingrid Neumann, Building Standards Office.

Staff Position

Energy Commission staff has found that the application meets all requirements under Public Resources Code Section 25402.1, Subd. (h)(2), and Section 10-106 of the Standards. Energy Commission staff believes that the City of Santa Monica should be

commended for seeking to achieve the energy savings that result from this local energy ordinance.

The City of Santa Monica has been informed that the approved ordinance will be enforceable during the time that the *2013 Building Energy Efficiency Standards* are effective. If the statewide Standards are subsequently revised or amended (as they are regularly on a three-year cycle), the Ordinance Sections 4.201.3,4,5 and 5.201.3,4 may no longer be enforced. The City of Santa Monica must submit an application to enforce either these local energy standards, or local energy standards revised in response to the updated statewide Standards, under Public Resources Code Section 25402.1, Subdivision (h)(2), and Section 10-106 of the Standards.

Oral Presentation Outline

Energy Commission staff will be available at the April 13, 2016, business meeting to provide a brief summary if requested and to answer questions if any arise.

Business Meeting Participants

Ingrid Neumann, Building Standards Office.

Commission Action Requested

Approval of the City of Santa Monica's locally adopted energy standards that are more stringent than, or different from, the *2013 Building Energy Efficiency Standards*.

**Summary of Staff's Review of the Application to
Approve the City of Santa Monica's Local Building Energy Efficiency Standards
Ordinance Sections 4.201.3,4,5 and 5.201.3,4**

Local governmental agencies are required to apply to the Energy Commission for approval of local energy standards pursuant to Public Resources Code Section 25402.1, Subdivision (h)(2), and the *2013 Building Energy Efficiency Standards* (Standards) provided in California Code of Regulations, Title 24, Part 1, Chapter 10, Section 10-106.

Staff reviewed the City of Santa Monica's application to determine if the application contains the necessary components required by section 10-106, Subdivision (b) of the Standards. In addition, staff determined whether the standards will require the diminution of energy consumption levels permitted by the current Standards, and staff confirmed whether the local governmental agency's governing body, at a public meeting, adopted its determination that the standards are cost effective. (Pub. Resources Code, § 25402.1, subd. (h)(2); Standards, § 10-106.)

The following analysis supports staff's position that the City of Santa Monica has met the requirements of Public Resources Code Section 25402.1, Subdivision (h)(2), and Section 10-106 of the Standards.

1. Proposed energy standards.

The City of Santa Monica is required to submit its proposed energy standards to the Energy Commission as part of its complete application. (Pub. Resources Code, § 25402.1, subd. (h)(2); Standards, § 10-106, subd. (b)(1).) The City of Santa Monica submitted its completed application, including its proposed energy standards, on December 23, 2015. The initial application was received November 9, 2015, after being heard by the Santa Monica City Council on October 27, 2015; however, various deficiencies were identified which were corrected prior to posting for the 60-day public comment period.

On October 27, 2015, the City of Santa Monica's Council approved the first reading of the Ordinance adopting and amending the 2013 California Green Building Standard Code (CALGreen). The City of Santa Monica will schedule a second reading to finalize the adoption of the proposed local energy standards once they are approved by the Energy Commission.

As part of this ordinance, the city modified Sections 8.106.055 and 8.106.080 of the Santa Monica Municipal Code to amend and adopt as mandatory Sections 4.201 and 5.201 of the 2013 California Green Building Standards Code as follows:

4.201.3 For new pool construction in low-rise residential structures renewable energy must be used for heating. The surface area of the solar collectors used to generate such renewable energy must be equal to or greater than 70 percent of the surface area of the pool; or at least 60 percent of the total energy necessary for heating must come from renewable sources. Electrical resistance heaters that are not powered directly by renewable energy courses shall not be used to heat pool water. The requirements of this section shall be waived or reduced, by the minimum extent necessary, in situations where installation of solar water heating is technically infeasible.

4.201.4 All new one and two family dwellings are required to install a solar electric photovoltaic (PV) system using one of the following methods:

1. Install a solar PV system with a minimum total wattage 1.5 times the square footage of the dwelling or;
2. Install a solar PV system or other renewable energy system that will offset 75 percent -100 percent of the Time Dependent Valuation (TDV) energy budget.
3. Demonstrate that the TDV energy budget is reduced by the same wattage required by (1) above.

The requirements of this section shall be waived or reduced, by the minimum extent necessary, in situations where production of electric energy from solar panels is technically infeasible due to lack of available unshaded areas.

4.201.5 All new low-rise multifamily residential dwellings are required to install a solar electric photovoltaic (PV) system with a minimum total wattage 2.0 times the square footage of the dwelling. The requirements of this section shall be waived or reduced, by the minimum extent necessary, in situations where production of electric energy from solar panels is technically infeasible due to lack of available unshaded areas.

5.201.3 For new pool construction in nonresidential, high-rise residential, hotel and motel structures renewable energy must be used for heating. The surface area of the solar collectors used to generate such renewable energy must be equal to or greater than 70 percent of the surface area of the pool; or at least 60 percent of the total energy necessary for heating must come from renewable sources. Electrical resistance heaters that are not powered directly by renewable energy courses shall not be used to heat pool water. The requirements of this section shall be waived or reduced, by the minimum extent necessary, in situations where installation of solar water heating is technically infeasible.

5.201.4 All new nonresidential, high-rise residential, hotel and motel structures are required to install a solar electric photovoltaic (PV) system with a minimum total wattage 2.0 times the square footage of the building. The requirements of this section shall be waived or reduced, by the minimum extent necessary, in situations where production of electric energy from solar panels is technically infeasible due to lack of available unshaded areas.

2. Energy-savings and cost-effectiveness findings and supporting analyses.

The City of Santa Monica also submitted its findings and supported analysis on the energy savings and cost effectiveness of the proposed energy standards, as required by Section 10-106, Subdivision (b)(2) of the Standards, with its completed application.

The City of Santa Monica included both its own analysis on the cost-effectiveness of the “Implementation of Solar Energy Systems” and the draft study drawn from the Energy and Environmental Economics, Inc. “Cost-Effectiveness of Rooftop Photovoltaic Systems,” with their completed application.

Staff confirmed that the City of Santa Monica’s determination of cost effectiveness was adopted by the governing body of the City of Santa Monica at a public meeting of the City Council on October 27, 2015. (Pub. Resources Code, § 25402.1, subd. (h)(2).)

3. Finding that the local energy standards will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6.

Section 10-106, Subdivision (b)(3) requires local governmental agencies to submit a statement or finding “that the local energy standards will require buildings to be designed to consume no more energy than permitted by Part 6.” The City of Santa Monica submitted its finding with its application.

The Energy Commission is required to find that the City of Santa Monica’s local energy standards “will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6.” (Standards, § 10-106, subd. (a); Pub. Resources Code, § 25402.1, subd. (h)(2).)

Modifications to the 2013 California Green Building Standards Code, in the City of Santa Monica’s proposed energy provisions, will ensure that less energy will be consumed by buildings complying with the new ordinance by requiring installation of solar PV. The proposed energy provisions do not otherwise modify any of the requirements in Title 24, Part 6. The solar PV will provide a portion of the energy otherwise obtained from the grid, on site from renewable sources. This ensures that the modifications to the energy provisions proposed by the City of Santa Monica will require buildings to be designed to consume no more energy than permitted by the 2013 Energy Code.

4. California Environmental Quality Act Assessment.

The last requirement of Section 10-106 of the Standards concerns the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. Section 10-106, Subdivision (b)(4) requires the City of Santa Monica to submit, with its application, “any findings, determinations, declarations or reports, including any negative declaration or environmental impact report, required pursuant to [CEQA].”

In adopting local ordinances such as this one, the City of Santa Monica is required to comply with CEQA. (See Pub. Resources Code, §§ 21080, subd. (a), 21063; Cal. Code Regs., Tit. 14, §§ 15020-15022, 15379.) Even though the Energy Commission has the authority to approve local energy standards under Section 25402.1, Subdivision (h)(2) of the Public Resources Code, and Section 10-106 of the Standards, the lead agency for local energy standards is the City of Santa Monica because it will implement and enforce these standards (Cal. Code Regs., Tit. 14, §§ 15050, 15051).

The Energy Commission staff, acting on behalf of the Energy Commission as a responsible agency, has reviewed and considered the City of Santa Monica’s CEQA documents and findings prior to recommending approval of the Ordinance Sections 4.201.3,4,5 and 5.201.3,4.

The Council of the City of Santa Monica found with certainty that there is no possibility that the ordinance will have a significant negative effect on the environment. Therefore, the Council of the City of Santa Monica found on October 27, 2015, that the project is exempt under the “common sense” provision of CEQA (Cal. Code Regs. Tit. 14, § 15061(b)(3)).

The Energy Commission found, in April of 2012, that the 2013 revision of the *Building Energy Efficiency Standards* would have no net adverse impact on the environment and adopted a Negative Declaration for the *2013 Building Energy Efficiency Standards* (see Order Adopting Proposed Regulations and Negative Declaration (May 31, 2012) at http://www.energy.ca.gov/title24/2013standards/rulemaking/notices/2012-05-31_Adoption_Order_No_12-0531-5_TN-65677.pdf). Since all local codes must be at least as stringent as the Standards, staff can conclude that any ordinance that proposes to exceed such Standards is expected to have no net adverse impact on the environment. Energy Commission staff has considered and concurs with the CEQA assessment that was performed and the findings that were reached.

In addition, staff recommends that the Energy Commission independently find that the City of Santa Monica's local energy standards are not subject to CEQA because there is no possibility that implementing the standards may have a significant adverse effect on the environment. (Cal. Code Regs. Tit. 14, § 15061, subd. (b)(3).) Staff anticipates that the local energy standards will have significant environmental benefits for the City of Santa Monica because the local standards are even more protective of the environment than the state-wide Standards, which were previously found to have no significant adverse effect on the environment. These solar PV measures are more protective of the environment by reducing the energy consumption of occupants from non-renewable sources and allow buildings to be constructed in a similar manner to conventional buildings compliant with the energy code. They are an important step towards the State's goal of Zero Net Energy construction.