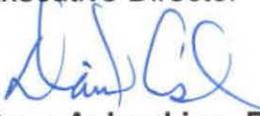


Memorandum

To: Robert P. Oglesby
Executive Director

Date: October 12, 2016

Telephone: (916) 654-5013

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

Subject: **POSSIBLE APPROVAL OF THE CITY AND COUNTY OF SAN FRANCISCO'S
LOCAL BUILDING ENERGY STANDARDS: ORDINANCE NO. 71-16**

Summary of Item

The California Public Resources Code (PRC) 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 PRC Section 25402.1, Subdivision (h)(2), and the *2016 Building Energy Efficiency Standards* (2016 Standards) provided in California Code of Regulations (CCR), 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.

As part of this ordinance, the city and county of San Francisco will require that all newly constructed buildings of residential occupancy of 10 floors or less, as well as newly constructed buildings of nonresidential occupancy of 10 floors or less and greater than 2000 square feet in gross floor area, install solar photovoltaic systems and/or solar thermal systems in the solar ready zone defined by the CCR, Title 14, Part 6, Section 110.10.

The local governmental agency must submit an application to the Executive Director of the Energy Commission, which 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.
- 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 reduction 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. (PRC, § 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 webpage for Local Ordinances Exceeding the *2016 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 16-BSTD-07 for a 60-day public comment period, which concludes on October 15, 2016.

As detailed in the attachment, staff reviewed the city and county of San Francisco's application for approval of its local energy standards enumerated in Ordinance No. 71-16. Staff found that the application contains all of the application components required by Section 10-106, Subdivision (b) of the standards. Specifically, the city and county of San Francisco's application contains:

- Proposed energy standards.
- Findings and supported analysis on the energy savings and cost effectiveness of the proposed energy standards.
- A finding that the local energy standards will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6.
- A CEQA determination.

In addition, staff reviewed the application to determine whether the standards will require the reduction of energy consumption levels permitted by the current standards.

Project Manager

Ingrid Neumann, Building Standards Office.

Staff Position

Staff has found that the application meets all requirements under PRC, Section 25402.1, Subd. (h)(2), and Section 10-106 of the 2016 Standards. Staff believes that the city and county of San Francisco should be commended for seeking to achieve the energy savings that result from this local energy ordinance.

The city and county of San Francisco has been informed that the approved ordinance will be enforceable during the time that the *2016 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 No. 71-16 is no longer enforceable. If the city and county of San Francisco wishes to enforce either these local energy standards, or other local energy standards revised in response to the updated statewide standards, under PRC, Section 25402.1, Subdivision (h)(2), and Section 10-106 of the 2016 Standards, the city and county of San Francisco must submit a new application.

Oral Presentation Outline

Staff will be available at the November 9, 2016, business meeting to provide a brief summary if requested and to answer questions.

Business Meeting Participants

Ingrid Neumann, Building Standards Office.

Commission Action Requested

Approval of the city and county of San Francisco's locally adopted energy standards that are more stringent than, or equivalent to, but different from, the *2016 Building Energy Efficiency Standards*.

Summary of Staff's Review of the Application to Approve the City and County of San Francisco's Local Building Energy Efficiency Standards Ordinance No.71-16

Local governmental agencies are required to apply to the Energy Commission for approval of local energy standards pursuant to Public Resources Code (PRC) Section 25402.1, Subdivision (h)(2), and the *2016 Building Energy Efficiency Standards* (2016 Standards) provided in California Code of Regulations (CCR), Title 24, Part 1, Chapter 10, Section 10-106.

Staff reviewed the city and county of San Francisco's application to determine if the application contains the necessary components required by Section 10-106, Subdivision (b) of the 2016 Standards. In addition, staff determined whether the standards will require the diminution of energy consumption levels permitted by the current 2016 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. (PRC, § 25402.1, Subd. (h)(2); Standards, § 10-106.)

The following analysis supports staff's position that the city and county of San Francisco has met the requirements of PRC Section 25402.1, Subdivision (h)(2), and Section 10-106 of the standards.

1. Proposed energy standards.

On April 26, 2016, the city and county of San Francisco's Board of Supervisors adopted the amendments to the energy code in Ordinance No.71-16. The cost effectiveness study was also heard and approved on this date. In addition, the mayor of San Francisco approved the adopted ordinance on May 6, 2016.

The city and county of San Francisco is required to submit its proposed energy standards to the Energy Commission as part of its complete application. (PRC, § 25402.1, Subd. (h)(2); Standards, § 10-106, Subd. (b)(1).) The complete application was received by the Energy Commission on August 1, 2016, and posted for the 60-day public comment period on August 16, 2016. The comment period ends on October 15, 2016, and no comments have been received.

As part of this ordinance, the city and county of San Francisco will require that all newly constructed buildings of residential occupancy of 10 floors or less, as well as newly constructed buildings of nonresidential occupancy of 10 floors or less and greater than 2000 square feet in gross floor area, install solar photovoltaic systems and/or solar thermal systems in the solar ready zone defined by the CCR, Title 14, Part 6, Section 110.10.

For residential occupancies the following shall apply:

1. For single family residences, Exceptions 3 and 5 to Title 24, Part 6, Section 110.10(b)1A may be applied in the calculation of the minimum solar zone area. Exceptions 1, 2, 4, 6, and 7 may not be applied in the calculation.
2. For residential buildings other than single family residences, Exceptions 3 and 5 to Title 24, Part 6, Section 110.10(b)1B may be applied in the calculation of the

minimum solar zone area. Exceptions 1, 2, and 4 may not be applied in the calculation.

3. Buildings with a calculated minimum solar zone area of less than 150 contiguous square feet due to limited solar access under Exception 5 to Title 24, Part 6, Section 110.10(b)1A or Exception 3 to Title 24, Part 6, Section 110.10(b)1B are exempt from the solar energy requirements in this section.

The sum of the areas occupied by solar photovoltaic collectors and/or solar thermal collectors must be equal to or greater than the solar zone area. The solar zone shall be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building or on covered parking installed with the building project. Solar photovoltaic systems and solar thermal systems shall be installed in accord with all applicable state code requirements, including access pathway, smoke ventilation, and spacing requirements specified in CCR Title 24, Part 9; all applicable local code requirements; manufacturer's specifications; and the following performance requirements:

1. Solar photovoltaic systems: The total nameplate capacity of photovoltaic collectors shall be at least 10 watts dc per square foot of roof area allocated to the photovoltaic collectors.
2. Solar thermal systems: Single-family residential solar domestic water heating systems shall be OG-300 System Certified by either the Solar Rating and Certification Corporation (SRCC) or the International Association of Plumbing and Mechanical Officials (IAPMO). Solar thermal systems installed in all residential occupancy buildings other than single family residences shall use collectors with OG-100 Collector Certification by SRCC or IAPMO shall be designed to generate annually at least 100 kBtu per square foot of roof area allocated to the solar thermal collectors. Systems with at least 500 square feet of collector area shall include a Btu meter installed on either the collector loop or potable water side of the solar thermal system.

For nonresidential occupancies the following shall apply:

1. Exceptions 3 and 5 to Title 24, Part 6, Section 110.10(b)1B may be applied in the calculation of the minimum solar zone area and Exceptions 1, 2, and 4 shall not be applied in the calculation.
2. Buildings with a calculated minimum solar zone area of less than 150 contiguous square feet due to limited solar access under Exception 3 are exempt from the solar energy requirements in this section.

The sum of the areas occupied by solar photovoltaic collectors and/or solar thermal collectors must be equal to or greater than the solar zone area. The solar zone shall be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building or on covered parking installed with the building project. Solar photovoltaic systems and solar thermal systems shall be installed in accord with all applicable state and local code requirements, manufacturer's specifications, and the following performance requirements:

1. Solar photovoltaic systems: The total nameplate capacity of photovoltaic collectors shall be at least 10 watts dc per square foot of roof area allocated to the photovoltaic collectors.
2. Solar thermal systems: Solar thermal systems installed to serve non-residential building occupancies shall use collectors with OG-100 Collector Certification by the Solar Rating and Certification Corporation (SRCC) or the International Association of Plumbing and Mechanical Officials (IAPMO), shall be designed to generate annually at least 100 kBtu per square foot of roof area allocated to the solar thermal collectors. Systems with at least 500 square feet of collector area shall include a Btu meter installed on either the collector loop or potable water side of the solar thermal system.

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

The city and county of San Francisco also submitted its findings and supported analysis on the energy savings and cost effectiveness of the proposed energy standards with its completed application, as required by Section 10-106, Subdivision (b)(2) of the 2016 Standards.

The city and county of San Francisco worked closely with ARUP Engineers to determine that the benefit to cost ratio of including solar photovoltaic or solar thermal for each covered occupancy was greater than 1.00. The city and county of San Francisco's cost effectiveness study was submitted with the completed application in their staff report.

Staff confirmed that the city and county of San Francisco's determination of cost effectiveness was adopted by the governing body of the city and county at a public meeting of the San Francisco Board of Supervisors on April 26, 2016. (PRC, § 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 and county of San Francisco submitted its finding with its application in the Chief Building Official's cover letter to the commissioners.

The Energy Commission is required to find that the city and county of San Francisco'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); PRC, § 25402.1, Subd. (h)(2).)

Adoption of a solar photovoltaic or solar thermal installation requirement for newly constructed buildings will ensure that less energy will be consumed by buildings complying with the new ordinance than would be used by buildings complying with the 2016 Energy Standards. The proposed energy provisions do not otherwise modify any of the

requirements in Title 24, Part 6. This ensures that the modifications to the energy provisions proposed by the city and county will require buildings to be designed to consume no more energy than permitted by the 2016 Energy Code.

4. California Environmental Quality Act Assessment.

The last requirement of Section 10-106 of the 2016 Standards concerns the California Environmental Quality Act (CEQA), PRC Section 21000 et seq. Section 10-106, Subdivision (b)(4) requires the city and county of San Francisco 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 and county of San Francisco is required to comply with CEQA. (See PRC, §§ 21080, Subd. (a), 21063; CCR, 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 PRC, and Section 10-106 of the standards, the lead agency for local energy standards is the city and county of San Francisco because it will implement and enforce these standards (CCR, Tit. 14, §§ 15050, 15051).

The Energy Commission staff has reviewed and considered the city and county of San Francisco’s CEQA findings prior to recommending approval of the Ordinance No. 71-16. The San Francisco Board of Supervisors found with certainty that there is no possibility that the ordinance will have a significant negative effect on the environment. Therefore, the San Francisco Environmental Planning Department found on March 4, 2016, that the ordinance is not considered a project under CEQA Sections 15378 and 15060(c)(2) because it does not result in a physical change in the environment (CCR Tit. 14, §§ 15378, 15060(c)(2)).

The Energy Commission found, on June 10, 2015, that the 2016 revision of the *Building Energy Efficiency Standards* would have no net adverse impact on the environment and adopted a Negative Declaration for the *2016 Building Energy Efficiency Standards*. See Notice of Determination at: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/15-day_language/2015-06-11_Notice_of_Determination.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. 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 and county of San Francisco’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. (CCR Tit. 14, § 15061, Subd. (b)(3).) Staff anticipates that the local energy standards will have significant environmental benefits for the city and county 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.

Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

From: California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

County Clerk(s): Office of the County Clerk
City and County of San Francisco
City Hall, Room 168
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4678

Project Title: City and County of San Francisco Local Ordinance No. 71-16

Project Applicant: N/A

Project Location – City & County: San Francisco

Description of Nature, Purpose and Beneficiaries of Project:

Pursuant to Public Resources Code (PRC) Section 25402.1(h)(2) and Section 10-106 of Title 24 of the California Code of Regulations (CCR), the city and county of San Francisco has applied to the California Energy Commission for a determination that its locally adopted energy efficiency standard, enacted in Local Ordinance No. 71-16 (the Ordinance), will require buildings to be designed to consume no more energy than permitted by the *Building Energy Efficiency Standards* adopted by the Energy Commission. The Energy Commission's Building Standards are set forth in Title 24, Part 6, of the CCR. The ordinance requires that all newly constructed buildings of residential occupancy of 10 floors or less, as well as newly constructed buildings of nonresidential occupancy of 10 floors or less and greater than 2000 square feet in gross floor area install solar photovoltaic systems and/or solar thermal systems in the solar ready zone defined by the CCR, Title 14, Part 6, Section 110.10. Consistent with PRC Section 25402.10(h)(2), the Energy Commission found that the city and county of San Francisco's Ordinance will require the diminution of energy consumption levels permitted by the *2016 Building Energy Efficiency Standards*.

Name of Public Agency Approving Project: City and County of San Francisco (Lead Agency);
California Energy Commission (Responsible Agency)

Name of Person or Agency Carrying Out Project: City and County of San Francisco

Exempt Status:

- Ministerial (Sec. 21080(b)(1); 15268);
- Declared Emergency (Sec. 21080(b)(3); 15269(a));
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- Categorical Exemption. State type and section number:
California Code of Regulations, title 14, § 15061(b)(3).
- Statutory Exemption. State code number:

Reasons why project is exempt:

The finding by the Energy Commission required by PRC Section 25402.1(h)(2), that the city and county of San Francisco Ordinance will require the diminution of energy consumption levels permitted by the *2016 Building Energy Efficiency Standards*, involves the comparison of the energy savings of the

Ordinance pursuant to an objective fixed standard, and does not require the exercise of judgment or deliberation on the part of the Energy Commission. It is therefore a ministerial act consistent with Section 15369 of Title 14 of the CCR, and is exempt from CEQA pursuant to PRC Section 21080(b)(1) and Section 15268 of Title 14 of the California Code of Regulations.

The California Energy Commission also determined that the activity is covered by the general rule that California Environmental Quality Act (CEQA) applies only to projects which have the potential for causing a significant effect on the environment. (14 CCR § 15061(b)(3).) Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. The Energy Commission previously found that its adoption of the California Green Building Code, adopted in part by the city and county of San Francisco Ordinance, was exempt from CEQA pursuant to Title 14, Section 15061(b)(3). Additionally, a negative declaration was previously adopted for the *Building Energy Efficiency Standards* as a whole. See SCH No. 2012032062. These standards are more protective of the environment than the state standards, and there are no reasonably foreseeable adverse impacts, and so there is no possibility that the activity in question may have a significant effect on the environment. The city and county of San Francisco also stated in its application to the Energy Commission that this activity is exempt from CEQA under Sections 15378 and 15060(c)(2) of Title 14 of the CCR, because it cannot be considered a project.

Lead Agency

Contact Person: Tom C. Hui, S.E., Chief Building Official, City and County of San Francisco
Area Code/Telephone/Extension: (415) 558-6131

Responsible Agency

Contact Person: Ingrid Neumann
Area Code/Telephone/Extension: (916) 651-1461

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature: _____ **Date:** November 9, 2016

Title: Buildings Standards Specialist,
California Energy Commission

Signed by Lead Agency Signed by Applicant Signed by Responsible Agency

Date Received for filing at OPR: _____

Authority cited: Sections 21083 and 21110, Public Resources Code.

Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

STATE OF CALIFORNIA
STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION APPROVING
THE CITY AND COUNTY OF SAN FRANCISCO'S
LOCAL BUILDING ENERGY EFFICIENCY STANDARDS ORDINANCE No. 71-16

RESOLUTION: California Energy Commission approval of the city and county of San Francisco's locally adopted building energy standards, Ordinance No. 71-16, to require greater or equivalent energy efficiency than the *2016 Building Energy Efficiency Standards*, provided in California Code of Regulations, Title 24, Part 6, and associated administrative regulations in Part 1, Chapter 10.

WHEREAS, on April 26, 2016, the city and county of San Francisco adopted an ordinance to exceed the *2016 Building Energy Efficiency Standards* (the Ordinance); and

WHEREAS, Public Resources Code Section 25402.1, Subdivision (h)(2), and California Code of Regulations, Title 24, Section 10-106, establish a process for local governments to apply to the Energy Commission for approval of local energy standards that are different from, but which must be at least as stringent as, the *2016 Building Energy Efficiency Standards*; and

WHEREAS, the city and county of San Francisco submitted an application to the Energy Commission for the Ordinance that meets all of the documentation requirements pursuant to Public Resources Code Section 25402.1, Subdivision (h)(2), and California Code of Regulations, Title 24, Section 10-106; on June 20, 2016; and

WHEREAS, the city and county of San Francisco, in their application to the Energy Commission, indicated that there is no possibility that the implementation of the Ordinance will have a significant negative impact on the environment, and therefore the adoption of the ordinance is exempt from the California Environmental Quality Act codified in California Public Resources Code section 21000 et seq. (CEQA), pursuant to Subdivision (b)(3) of Section 15061 of the CEQA Guidelines, codified in Title 14 of the California Code of Regulations; and

WHEREAS, the city and county of San Francisco has made a written commitment to actively enforce compliance both with Ordinance No. 71-16 and the *2016 Building Energy Efficiency Standards*; and

WHEREAS, the Energy Commission has analyzed whether the Ordinance will require the diminution of energy consumption levels permitted by the *2016 Building Energy Efficiency Standards*.

THEREFORE BE IT FURTHER RESOLVED, the Energy Commission finds that the city and county of San Francisco's Ordinance will require the diminution of energy consumption levels permitted by the *2016 Building Energy Efficiency Standards*; and

THEREFORE BE IT RESOLVED, that the Energy Commission finds that granting the application of the city and county of San Francisco regarding the Ordinance will not result in a direct or reasonably foreseeable indirect physical change to the environment, and is therefore

exempt from CEQA pursuant to Subdivision (b)(3) of Section 15061 of the CEQA Guidelines, codified in Title 14 of the California Code of Regulations; and

THEREFORE BE IT FURTHER RESOLVED, the Energy Commission applauds the city and county of San Francisco for seeking to achieve additional energy demand reductions, energy savings and other benefits exceeding those of the *2016 Building Energy Efficiency Standards*; and

THEREFORE BE IT FURTHER RESOLVED, that on November 9, 2016, the Energy Commission grants the application of the city and county of San Francisco; and

THEREFORE BE IT FURTHER RESOLVED, that the Energy Commission directs the Executive Director to take all actions necessary to implement this Resolution, including but not limited to filing the appropriate notices with the Office of Planning and Research. (See, e.g., Cal. Code Regs., Tit 14, § 15062.)

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at a meeting of the California Energy Commission held on November 9, 2014.

AYE: Weisenmiller, Douglas, Hochschild, McAllister, Scott

NAY:

ABSENT:

ABSTAIN:

CODY GOLDTHRITE
Secretariat