



Legislation Details (With Text)

Attachment 2

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Title: HEARING to consider adopting Ordinance No. 2024-17, amending the 2022 California Energy Code to increase energy efficiency standards for certain newly constructed buildings. (Demian Hardman-Saldana, Department of Conservation and Development)

Attachments: 1. 10-1-24 BOS_Local Energy Code Amendment Slide Deck, 2. Exhibit A, 3. Ordinance No. 2024-17 Energy Code Amendments, 4. Findings ISO Energy Reach Code Adoption, 5. 2022 Cost-Effectiveness Studies, 6. Signed Ord 2024-17 .pdf

Date	Ver.	Action By	Action	Result	Tally
10/1/2024	1	BOARD OF SUPERVISORS	approved	Pass	5:0

To: Board of Supervisors

From: John Kopchik, Director, Conservation and Development

Report Title: HEARING to Consider Adopting Ordinance No. 2024-17 amending the 2022 California Energy code to increase energy efficiency standards for certain newly constructed buildings

Recommendation of the County Administrator Recommendation of Board Committee

RECOMMENDATIONS:

1. OPEN the public hearing on Ordinance No. 2024-17, RECEIVE testimony, and CLOSE the public hearing.
2. ADOPT Ordinance No. 2024-17, amending the 2022 California Energy Code with changes, additions, and deletions, requiring increased energy efficiency standards for newly constructed residential buildings, hotels, offices, and retail buildings.
3. ADOPT the attached findings and cost effectiveness studies in support of the County’s changes, additions and deletions to the 2022 California Energy Code
4. DIRECT the Department of Conservation and Development, to submit a certified copy of Ordinance No. 2024-17, the adopted findings and cost effectiveness studies and this Board Order to the California Energy Commission, the California Department of Housing and Community Development, and the California Building Standards Commission.
5. FIND that adoption of the ordinance is exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Sections 15061(b)(3) and 15308.

6. DIRECT staff to file a Notice of Exemption with the County Clerk and pay any required fee for the filing.

FISCAL IMPACT:

None.

BACKGROUND:

On June 4, 2024, the Board of Supervisors directed staff to develop an ordinance amending the County building code to increase the energy efficiency standards for newly constructed residential buildings, hotels, offices and retail buildings to meet the County's 2024 Climate Action and Adaptation Plan goals.

On September 10, 2024, the Board of Supervisors (BOS) introduced Ordinance No. 2024-17, waived its reading, and fixed a hearing date of October 1, 2024, to consider amending the 2022 California Energy Code to require increased energy efficiency standards for all newly constructed residential buildings, hotels, offices, and retail buildings.

Health and Safety Code sections 17958.5 and 18941.5 authorize a local agency to modify the 2022 California Energy Code and establish more restrictive building standards if the local agency finds that the changes and modifications are reasonably necessary because of local climatic, geological, topographical, or environmental conditions. California Public Resources Code section 25402.1(h)(2) further authorizes a local agency to modify the California Energy Code if the local agency finds that the proposed standards are cost-effective and the California Energy Commission (CEC) determines that the proposed standards will require the diminution of energy consumption levels permitted by the 2022 California Energy Code.

The proposed Ordinance No 2024-17 (attached) would amend the 2022 California Energy Code due to local climatic, geographical, topographical, and environmental conditions. The attached findings describe the local climatic, geographical, topographical, and environmental conditions that make the more restrictive standards reasonably necessary. The attached findings also include the required findings related to energy savings and cost-effectiveness based on several cost-effectiveness studies prepared as part of the Statewide Reach Codes Program. The referenced cost-effectiveness studies are also attached. The proposed substantive changes to the 2022 California Energy Code are described below.

Modifications to the 2022 California Energy Code

The proposed ordinance requires a higher (or more stringent) energy efficiency standard than is required in the current 2022 California Energy Code for newly constructed single-family residential buildings, detached accessory dwelling units, multi-family residential buildings, hotel, office, and retail buildings. Building permit applicants will be required to demonstrate compliance with this standard by achieving the required Source Energy score on the Energy Code analysis submitted as part of their permit application.

For newly constructed non-residential buildings (office, retail, and hotel) and multi-family residential buildings, the 2022 California Energy Code requires that an Energy Budget be calculated. The Energy Budget approximates the projected energy consumption for a non-residential building or multi-family building proposed for construction. The Energy Budget is calculated by the sum of two separate metrics, Source Energy

and Time-Dependent Valuation (TDV) Energy. The Source Energy metric accounts for both the energy consumed on site, plus energy used in its production and delivery. Source Energy is also a reasonable proxy for greenhouse gas emissions. Accordingly, staff identified Source Energy as the metric for which to impose increased efficiency requirements.

Due to climactic effects, the required energy performance standard (e.g., Source Energy or EDR1) differs depending on the climate zone (location) in which the new building is constructed. Contra Costa County has two climate zones. Climate Zone 3 generally encompasses West County, and Climate Zone 12 generally encompasses Central and East County.

The proposed ordinance would:

1. Require a Source Energy Design Rating Compliance Margin (i.e. a lower EDR1 score) resulting in a stricter energy efficiency requirement than is required in the current state energy code for all newly constructed single-family residential buildings and newly constructed detached accessory dwelling units (ADUs), with the exception of ADUs located in Climate Zone 3 (see exceptions listed below for explanation).
2. Require a Source Energy Compliance Margin (i.e. a lower source energy score) resulting in stricter energy efficiency requirement than is required in the current state energy code for all newly constructed multi-family buildings, hotels, offices, and retail buildings.
3. Impose additional electric readiness requirements for hotels, offices, and retail buildings that are designed for natural gas infrastructure.

The Source Energy Design Rating Compliance Margin for single-family buildings and ADUs, and Source Energy Compliance Margin for multi-family buildings, hotels, offices, and retail buildings, are calculated relative to those same metrics as calculated for the required Energy Budget for the standard design building under the Energy Code. The compliance margins for each building type proposed in the ordinance are provided in Exhibit A of this report. Exhibit A also includes a summary of the cost-effective design options that correspond with the compliance margins proposed for each building type.

The Source Energy Design Rating Compliance Margin for single-family buildings and ADUs, and Source Energy Compliance Margin for multi-family buildings, hotels, offices, and retail buildings, are calculated relative to those same metrics as calculated for the required Energy Budget for the standard design building under the Energy Code. The compliance margins for each building type proposed in the ordinance are provided in Exhibit A of this report. Exhibit A also includes a summary of the cost-effective design options that correspond with the compliance margins proposed for each building type.

Below are exceptions to the compliance margins proposed in the ordinance:

- Detached Accessory Dwelling Units (ADUs) located in Climate Zone 3. The currently available cost-effectiveness studies do not demonstrate that it is cost-effective to require a higher energy efficiency standard for detached ADUs located in Climate Zone 3.
- Newly constructed buildings that do not require a Photovoltaic (PV) system (i.e. solar panels). There are some instances where smaller homes, especially ADUs, may be exempt under the current energy code from being required to install a PV system. It would not be cost-effective to require a higher energy efficiency standard for instances where the building code does not require a PV system be installed.

- Nonresidential occupancies (hotel, office, and retail) designed with single zone conditioning systems. It has not yet been proven to be cost-effective to require a higher energy efficiency standard for non-residential buildings that have single zone conditioning systems.
- A community shared solar electric generation system, or other renewable electric generation system, or community shared battery storage system which provides dedicated power may offset part or all of the Energy Budget standards for a proposed building. This exception encourages the installation of these systems, which is consistent with the current intent of the building code.
- Additions and alternations. The reach code provisions do not apply to additions, alterations, or repairs. However, if the majority of an existing building is damaged or demolished and then reconstructed, the reconstructed structured would be considered a new building and would be subject to the provisions of this ordinance.

The ordinance also includes an electric readiness requirement for nonresidential systems (hotel, office and retail buildings). Where new hotel, office or retail building types are proposed to install gas or propane, the construction drawings would be required to include routing of conduit from the equipment using gas or propane to the point of interconnection with the electrical service. The installation of electrical conduit at the location of gas or propane equipment will facilitate the replacement of such appliances with electric-powered equipment at a future date at the discretion of the property owner. County staff recommends that this additional requirement be included for the nonresidential building types that are required to have a higher energy efficiency standard by the proposed ordinance (hotel, office and retail). This provision is expected to have a nominal cost to a developer and would reduce costs for property owners if they choose to change their gas or propane equipment to electric in the future. The current Energy Code already includes similar requirements for all residential buildings, and this standard is expected to be required for nonresidential development in the 2025 Building Code (effective January 1, 2026).

The ordinance has been designed to allow property owners and developers flexibility in their building design to meet the higher efficiency standards proposed. The ordinance does not include any requirements that home appliances such as stoves, clothes dryers, and clothes washers be electric. Additionally, it does not require any ancillary building uses to be electric, such as for pool heating or outdoor cooking equipment.

Lastly, the proposed ordinance would delete the County all-electric requirement for newly constructed buildings. On February 27, 2024, the Board of Supervisors suspended enforcement of the all-electric requirement and directed staff to develop alternate regulations aimed at achieving the County's climate action goals. The proposed ordinance is a result of those efforts.

Local Impact on Energy Resources and Utility Service

This ordinance will not create difficulties for new buildings receiving electrical service because it will not significantly increase the electrical service requirements of new buildings compared to existing statewide requirements. This ordinance will have less impact on electrical service requirements for new buildings compared to the County's all-electric building ordinance, which is no longer being enforced, because this ordinance will allow for mixed fuel buildings and will provide developers with greater flexibility in designing the energy requirements of buildings. This ordinance provides home builders with choices and options for complying within the conventional electrical service requirements for new homes. These include options using both gas and electric powered appliances and devices within the home, as well as renewable energy generation (such as solar panels) and energy storage (batteries).

Nearly all new single-family residences constructed within the County are constructed with an electrical service of 200 amps or less, which is standard practice and is routinely accommodated by PG&E. The proposed ordinance will not change this. Home builders will be able to comply with the requirements of this ordinance using a standard electrical service of 200 amps or less.

Under current conditions, a very small portion of homes built within the County experience challenges receiving utility electrical service due to utility capacity issues. The circumstances leading to such challenges include exceptionally large homes, homes with unusually large electricity needs resulting from the uses on the property, and homes in very remote undeveloped areas where it is difficult for the utility to extend service. Such conditions exist today and will continue to exist in the foreseeable future. However, this will not be affected by the proposed ordinance because the ordinance does not impact the factors that create these challenges.

Separate from electrical capacity constraints, in recent years, many developers have reported increased wait times in scheduling utility connections for newly constructed buildings of all types. It is now taking PG&E much longer to provide personnel on site to perform the necessary connection services than it used to. The scheduling delays associated with connecting utility electrical service that many construction projects are currently experiencing will not be affected by this ordinance because such delays are driven by factors that are not related to this ordinance.

California Energy Commission Approval and Operative Dates

Modifications to the California Energy Code, and the associated findings, must be submitted to the California Energy Commission (CEC) for review and approval before the modifications take effect. If adopted by the Board, staff will transmit the adopted ordinance and findings to the CEC. Included as part of the findings to the CEC will be all appropriate cost-effectiveness studies required to substantiate cost-effectiveness to meet CEC approval. Staff has worked very closely with the Statewide Codes and Standards Program technical consultants in preparing the ordinance to meet the CEC standards for the proposed ordinance. The CEC has informed staff that the review and approval process is expected to take approximately 60 days. As drafted, the ordinance will become operative on January 1, 2025, or upon approval by the CEC, whichever is later.

California Environmental Quality Act (CEQA)

For the purposes of compliance with CEQA, adoption of the ordinance is the project. Based on the record before the County, staff has determined that this project is categorically exempt from environmental review under CEQA Guidelines Sections 15061(b)(3) (Review for Exemption) and 15308 (Actions by Regulatory Agencies for Protection of the Environment). Section 15061(b)(3) is the common sense exemption and applies only to projects 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. Section 15308 covers Class 8 categorical exemptions, which consist of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. For the purpose of protecting the environment, the proposed ordinance requires higher energy efficiency standards for all newly constructed residential buildings, hotels, offices, and retail buildings. The regulatory standards contained in the proposed ordinance are more stringent than those set forth in the State Building Standards Code, and as a result there are no reasonably foreseeable adverse impacts or possibility that the activity in question may have a significant effect on the environment.

CONSEQUENCE OF NEGATIVE ACTION:

The County would likely not meet its greenhouse gas emissions reduction targets proposed in its draft 2024

Climate Action and Adaptation Plan (anticipated adoption in fall 2024).