

ATTACHMENT A

This Initial Study and Proposed Negative Declaration has been prepared under the direction and control of the CEC to comply with the requirements of the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the guidelines in California Code of Regulations, Title 14, Section 15000 et seq. (CEQA Guidelines). The CEC amends the California Energy Code on a three-year cycle contained in the California Code of Regulations, Title 24, Part 6, and associated administrative regulations, contained in the California Code of Regulations, Title 24, Part 1. The CEC is required to amend the Energy Code “to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy, including the energy associated with the use of water, and to manage energy loads to help maintain electrical grid reliability.” (California Public Resources Code §25402). The proposed 2025 amendments would be the latest triennial update to the Energy Code. The proposed 2025 amendments, if adopted, would be incorporated into the 2025 edition of the Energy Code and become effective on January 1, 2026. The proposed 2025 amendments to the Energy Code are hereafter referred to as the “Proposed 2025 Amendments,” “2025 Energy Code,” or “Energy Code Updates.”

The CEC is the designated lead agency to undertake environmental review of the Proposed 2025 Amendments, as a project that could cause a direct or reasonably foreseeable indirect physical change to the environment. This Initial Study and Proposed Negative Declaration demonstrates and finds that there is no substantial evidence, in light of the whole record, that the Proposed 2025 Amendments may have a significant adverse effect on the environment. The initial study includes an environmental checklist supporting this finding.

Summary of Proposed 2025 Amendments

The following is a summary of the 2025 amendments that the CEC proposes to the Energy Code. Detailed information on the proposed changes can be found in Chapter 4.

The proposed amendments to the 2025 Energy Code would:

- Introduce prescriptive heat pump standards for select nonresidential building types when replacing single-zone rooftop units less than 65,000 Btu/h.
- Update prescriptive heat pump standards for newly constructed single-family, multifamily, and select nonresidential building types.
- Update solar photovoltaic system requirements and standards for residential, nonresidential, hotel and motel buildings.
- Update energy storage system standards for high-rise residential, nonresidential, hotel and motel buildings.

- Increase envelope efficiency standards for residential and nonresidential buildings.
- Increase space conditioning system efficiency and control standards for residential and nonresidential buildings.
- Improve indoor air quality requirements for multifamily buildings by requiring balanced or supply-only ventilation systems and compartmentalization leakage testing, as well as reduce energy from a prescriptive standard for energy/heat recovery ventilation (ERV/HRV) systems with a fault indicator display (FID).
- Introduce prescriptive heat pump standards for domestic water heating systems serving individual dwelling units in low-rise multifamily buildings.
- Establish electric-ready requirements for multifamily domestic water heating systems.
- Simplify standards for multifamily buildings.
- Require either solar heating or heat pump pool heaters for new pool and spa water heating systems.
- Expand the applicability of daylighting control requirements for nonresidential buildings by reducing the interior lighting threshold that triggers the code requirement.
- Add new airflow requirements and fan power limits for laboratory exhaust.
- Increase efficiency requirements for controlled environment horticulture buildings.
- Increase efficiency requirements for nonresidential refrigeration systems.
- Establish industrial pipe insulation requirements.
- Establish electric-ready requirements for commercial kitchens.
- Make general improvements to the clarity and consistency of existing provisions.
- Relocate portions of the Alternative Calculation Method Approval Manual pertaining to the application, approval, updates, expiration, and decertification of third-party compliance software to Title 24, Part 1.
- Relocate field verification and diagnostic testing requirements from Title 20 to Title 24, Part 1.

Environmental Impacts

Potential Increase in Material Uses Is Less Than Significant

Implementing the proposed changes to the Energy Code may cause increases in material uses. Such material uses include additional electronic equipment, lighting fixtures, heating and air-conditioning equipment, insulation, water-heating equipment,

plumbing and wiring, and other building and equipment elements. The CEC has evaluated the proposed changes to the Energy Code for potential environmental impacts. The CEC evaluated the proposed 2025 measures for potential increases in material uses for each of the following materials: mercury, lead, copper, steel, plastic, silicon, gold, aluminum, fiberglass, glass, and wood. In doing so, the measures identified as having potential materials impacts are solar photovoltaic systems that include quantities of glass and silicon, as well as copper wire; battery energy storage systems; efficient cooling towers that use additional steel; controlled environmental horticulture lighting requirements; and requirements for the use of either solar pool collectors or heat pump pool heaters for pool heating. Measures for multizone heat pump space heating standards for newly constructed nonresidential buildings and single-zone, roof top heat pumps in nonresidential alterations projects were also evaluated for potential material and environmental impacts. New standards for heat pump space and water heating for single-family newly constructed buildings and for heat pump water heaters when using individual systems in multifamily buildings are included in the energy and emissions analysis. These measures are included in the scope of the environmental impact analysis.

The CEC estimates that the contribution of each energy efficiency measure to the potential increases in material use is a small fraction of the material use in the current market and does not significantly affect the design or construction of the building into which the additional materials are incorporated. In each case, the CEC determined that the existing regulations governing the production, processing, handling, transportation, storage, use, and disposal are adequate to protect the public health and to restrict the potential environmental impacts such that environmental impacts from the Project would be less than significant.

Reduction of Water Consumption

Implementing the proposed changes to the Energy Code is expected to decrease statewide water consumption. These savings come from California power plants because of the overall reduction in electric power demand from the proposed energy efficiency improvements. The CEC estimates that there will be an overall decrease of about 69 million gallons (roughly 212 acre-feet) per year of water consumption from implementing the proposed changes to the Energy Code, compared to the “no project” alternative.

Impact to Indoor Air Quality Is Insignificant

There are no changes to the Energy Code that will adversely impact indoor air quality. Changes to specify installation standards for heat pump water heaters and the allowed ventilation options are expected to improve indoor air quality where the systems are installed.

Energy and Emission Benefits

The implementation of the 2025 Energy Code will reduce statewide electricity consumption by 404 gigawatt-hours per year, and natural gas consumption by 35 million therms per year. In addition, there will be a net reduction in the emissions of nitrogen oxides by roughly 321,000 pounds per year, sulfur oxides by 2,000 pounds per year, carbon monoxide by 284,000 pounds per year, and particulate matter by 26,000 pounds per year. Lastly, the Energy Code Updates will increase refrigerant use and leakage by transitioning to heat pumps for space and domestic water heating with an associated increase of statewide greenhouse gas (GHG) emissions by an amount equivalent to 15,000 metric tons of carbon dioxide (CO₂e). However, including the penalty associated with increased refrigerant leakage, overall, the Energy Code Updates will reduce statewide GHG emissions by a net amount of 177,000 Metric tons of CO₂e annually.

The emission estimates associated with the reduction of natural gas use are expected to occur in California at each building location and are based on the emission factors for residential and nonresidential space heating and domestic hot water equipment.

The emission estimates associated with the change in electricity use (in terms of gigawatt-hours per year) are associated with generation throughout the western United States, western Canada, and Mexico, which is generally coordinated by the Western Electricity Coordinating Council (WECC). California imports about 30 percent of its annual electricity generation from out-of-state sources through the Western Interconnection (western regional electric grid) (Nyberg 2023). That electricity is generated by a combination of sources that may include nuclear, hydroelectric, natural gas, coal, and renewable energy power plants. The total estimated emissions reductions described above, including those associated with out-of-state generation, are expected to occur from implementing the 2025 Energy Code.

The estimated reduction of greenhouse gas emissions, reported as CO₂e described above, includes the emission reductions of carbon dioxide (CO₂), methane (CH₄), and refrigerants.

Conclusions

The CEC has analyzed the environmental impacts of the proposed 2025 Energy Code for residential, multifamily, and nonresidential buildings. The CEC considered air emissions, water savings at California power plants, indoor air pollution, and increased materials use. The initial study concludes that the potential environmental impacts associated with implementing the 2025 Energy Code are less than significant without need for mitigation. Thus, the initial study proposes no mitigation measures. A description of all potential impacts is included in this report. Therefore, a negative declaration for the 2025 Energy Code should be adopted.