Chapter 23.24
ENERGY CODE

23.24.010 Adoption

(a) The California Energy Code, 2022~~19~~ Edition, Title 24, Part 6 of the California Code of Regulations, as adopted and amended by the State of California, hereinafter called "Energy Code," is adopted as the rules, regulations and standards within this City as to all matters therein except as hereinafter modified or amended. ~~for so long as the 2019 Edition of the Building Energy Code is in effect;~~

(b) One copy of the Energy Code shall at all times be kept on file in the office of the City Clerk.

~~23.24.020 Local Amendment to Definitions~~

~~Subchapter 1, "All Occupancies – General Provisions," Section 100.1(b), of the 2019 state Energy Code is amended to add the following definitions:~~

~~**Affordable unit** means housing that meets either of the following criteria:~~

~~(a) housing that is affordable to very low-income, low-income, or moderate-income households, or designated as 100% for senior households. Very low-income, low-income, and moderate-income households have the meaning set forth in the Health and Safety Code sections 50105, 50079.5, 50093, respectively. Senior households means households composed of qualifying residents as defined in Section 51.3 of the Civil Code; or~~

~~(b) housing that meets the criteria of the Low-Income Housing Tax Credit Project or Department of Housing and Urban Development programs that assist low-income and moderate-income households.~~

~~**All-electric building or all-electric design** is a building or building design that uses a permanent supply of electricity as the only source of energy for space conditioning (including heating and cooling), water heating (including pools and spas), cooking appliances, and clothes drying appliances, and has no natural gas or propane plumbing installed at the building.~~

~~**Mixed-fuel building or mixed-fuel design** is a building or building design that uses natural gas or propane as fuel for space heating, water heating (including pools and spas), cooking appliances or clothes drying appliances or is plumbed for such equipment.~~

~~23.24.030 Local Amendment Regarding Mandatory Solar Installations~~

~~Subchapter 5—"Nonresidential, High-rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency," Section 140.0(b), of the state Energy Code is amended to include:~~

~~A. Solar photovoltaic systems shall be installed as follows:~~

~~1. New residential buildings four stories or more shall provide a minimum of a 3-kilowatt photovoltaic system.~~

~~2. New non-residential buildings with less than 10,000 square feet of gross floor area shall provide a minimum of a 3- kilowatt photovoltaic system.~~

~~3. New non-residential buildings greater than or equal to 10,000 square feet of gross floor area shall provide a minimum of a 5-kilowatt photovoltaic system.~~

~~**Exception to Section A**: As an alternative to a solar photovoltaic system, all of the building types listed above may provide a solar hot water system (solar thermal) with a minimum collector area of 40 square feet.~~

~~23.24.040 – Local Amendment Regarding All-Electric Requirements for Residential Buildings and Buildings with Office Use.~~

~~(a) Subchapter 2 "All Occupancies—Mandatory Requirements for The Manufacture, Construction And Installation Of Systems, Equipment And Building Components" is amended to add a new section 110.13 "All-Electric Buildings." Section 110.13 "All-Electric Buildings" shall read as follows:~~

~~(b) All newly constructed office buildings and residential buildings shall be designed, constructed, and equipped as All-Electric Buildings.~~

~~**Exception to Section 110.13**. Multifamily buildings that consist of 100% affordable units shall be exempt from the all-electric building provisions of this section. For purposes of this exception, "affordable unit" is defined in Section 100.1(b).~~

~~23.24.050 – Local Amendment Regarding All-Electric or Energy Efficiency Standards for High-Rise Multifamily Residential Buildings with 100% Affordable Units.~~

~~(a) All-electric high-rise multifamily buildings that consist of 100% affordable units are required to meet the established energy efficiency standards in Subchapter 5, "Nonresidential, High-rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency," of the 2019 state Energy Code.~~

~~(b) Mixed-fuel high-rise multifamily buildings that consist of 100% affordable units shall comply with increased energy efficiency standards. Subchapter 5, "Nonresidential, High-rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency," of the 2019 state Energy Code is amended to require increased energy efficiency standards in the performance or prescriptive compliance approaches as follows:~~

~~(1) Performance Approach: Energy Code Section 140.1 "Performance Approach: Energy Budgets" is amended to include the following performance standards for mixed-fuel high-rise multifamily building that consists of 100% affordable units: A newly constructed mixed-fuel high-rise multifamily building that consists of 100% affordable units complies with the performance approach if the energy budget calculated for the Proposed Design Building under~~

~~Subsection (b) has a compliance margin exceeding the energy budget calculated for the Standard Design Building under Subsection (a) of at least 5%.~~

~~(2) Prescriptive Approach: Energy Code Section 140.2 "Prescriptive Approach" is amended to include the following prescriptive standards for newly constructed mixed-fuel high-rise multifamily buildings that consist of 100% affordable units:~~

~~(A) Install fenestration with a solar heat gain coefficient no greater than 0.22.~~

~~(B) Design Variable Air Volume (VAV) box minimum airflows to be equal to the zone ventilation minimums.~~

~~(C) Include economizers and staged fan control in air handlers with a mechanical cooling capacity ≥ 33,000 Btu/h~~

~~(D) Reduce the total lighting power density (Watts/ft2) by ten percent (10%) from that required from Table 140.6-C in the 2019 state Energy Code.~~

~~(E) Improve lighting without claiming any Power Adjustment Factor credits:~~

~~(i) Control to daylight dimming plus off per 2019 state Energy Code Section 140.6(a)2H, and~~

~~(ii) Perform Institutional Tuning per 2019 state Energy Code Section 140.6(a)2J.~~

~~(F) For all ducted central forced air heating systems and central fan integrated ventilation systems the duct distribution system shall be designed to reduce external static pressure to meet a maximum fan efficacy equal to 0.25 Watts per cfm according to the procedures outlined in the 2019 state Energy Code Reference Appendices RA3.3.~~

~~(G) Hot water pipe insulation shall be verified by a HERS inspector, in accordance with the 2019 state Energy Code Reference Appendices Section RA3.6.3.~~

~~23.24.060 Local Amendment Regarding All-Electric Buildings or Energy Efficiency Standards for Low-Rise Residential Buildings with 100% Affordable Units.~~

~~(a) All-electric low-rise residential buildings that consist of 100% affordable units are required to meet the established energy efficiency standards in Subchapter 8, "Low-rise Residential Buildings – Performance and Prescriptive Compliance Approaches," of the 2019 state Energy Code.~~

~~(b) Mixed-fuel low-rise residential buildings that consist of 100% affordable units shall comply with increased energy efficiency standards. Subchapter 8, "Low-rise Residential Buildings – Performance and Prescriptive Compliance Approaches," of the 2019 state Energy Code is amended to require~~

~~increased energy efficiency standards in the performance and prescriptive compliance approaches as follows:~~

~~(1) Performance Approach: Section 150.1.b. "Performance standards" is amended to include the following performance standard for newly constructed mixed-fuel low-rise residential buildings that consist of 100% affordable units:~~

~~The Total Energy Design Rating calculated for the Proposed Design Building shall be at least 0.5 EDR points less than the Total Energy Design Rating calculated for the Standard Design Building.~~

~~(2) Prescriptive Approach: Section 150.1.c. "Prescriptive standards/component packages" is amended to include the following prescriptive standards for newly constructed mixed-fuel low-rise residential buildings that consist of 100% affordable units:~~

~~(A) Slab floor perimeter insulation shall be installed with an R-value equal to or greater than R10. The minimum depth of concrete-slab floor perimeter insulation shall be 16 inches or the depth of the footing of the building, whichever is less.~~

~~(B) The hot water distribution system shall be designed and installed to meet minimum requirements for the basic compact hot water distribution credit according to the procedures outlined in the 2019 state Energy Code Reference Appendices RA4.4.6.~~

~~(C) Central Fan Integrated Ventilation Systems. Central forced air system fans used to provide outside air, shall have an air-handling unit fan efficacy less than or equal to 0.35 W/CFM. The airflow rate and fan efficacy requirements in this section shall be confirmed through field verification and diagnostic testing in accordance with all applicable procedures specified in 2019 state Energy Code Reference Residential Appendix RA3.3. Central Fan Integrated Ventilation Systems shall be certified to the Energy Commission as Intermittent Ventilation Systems as specified in 2019 state Energy Code Reference Residential Appendix RA3.7.4.2.~~

~~(D) Energy storage or Solar Thermal. Either of the following shall be installed:~~

~~(i) A battery energy storage system with a capacity equivalent to the PV system shall be installed. The system shall have automatic controls programmed to have the ability to charge anytime PV generation is greater than the building load and discharge to the electric grid during the highest priced time of use hours of the day , OR~~

~~(ii) A solar water heating system with a minimum solar savings fraction of 0.20.~~

~~23.24.070 – Infeasibility Exemption.~~

~~(a) Exemption. If an applicant believes that circumstances exist that makes it infeasible to meet the requirements of this Chapter, the applicant may request an exemption from the Building Official or designee at the time of planning application submittal. In applying for an exemption, the burden is on the applicant to show infeasibility. The applicant shall indicate the maximum threshold of compliance he or she believes is feasible to fully comply with this Chapter.~~

~~(b) Infeasibility. Circumstances that constitute infeasibility include, but are not limited to the following:~~

~~(1) There is a lack of commercially available materials and technologies to comply with the requirements of this Chapter;~~

~~(2) Applying the requirements of this Chapter would effectuate an unconstitutional taking of property or otherwise have an unconstitutional application to the property.~~

~~(c) Granting of Exemption. If the Building Official or designee determines that it is infeasible for the applicant to fully meet the requirements of this Chapter based on the information provided, the Building Official or designee, shall determine the maximum feasible threshold of compliance reasonably achievable for the project. The decision of the Building Official or designee shall be provided to the applicant in writing. If an exemption is granted, the applicant shall be required to comply with this Chapter in all other respects and shall be required to achieve, in accordance with this Chapter, the threshold of compliance determined to be achievable by the Building Official or designee.~~

~~(d) Denial of Exemption. If the Building Official or designee determines that it is reasonably possible for the applicant to fully meet the requirements of this Chapter, the request shall be denied and the Building Official or designee shall so notify the applicant in writing. The project and compliance documentation shall be modified to comply with this Chapter prior to further review of any pending planning or building permit application.~~

~~(e) Appeals of Exemption Denial. If denied the infeasibility exemption, the applicant may appeal in writing to the Community Development Department (CDD) Director. The CDD Director will consider the information provided and render a written decision regarding infeasibility based on the factors set forth in this Chapter. The decision of the CDD Director shall be final.~~

~~23.24.080 – Expiration.~~

~~These local code amendments shall sunset when the California Energy Code, 2019 Edition, is no longer in effect.~~