

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, AMENDING CHAPTER 8.30 (CALIFORNIA ENERGY CODE) OF TITLE 8 (BUILDINGS AND CONSTRUCTION) OF THE MORENO VALLEY MUNICIPAL CODE ADOPTING THE 2025 CALIFORNIA ENERGY CODE, WITH AMENDMENTS TO TITLE 24, PART 6, SUBCHAPTER 9, SECTION 150.2, TO REQUIRE ENERGY CONSERVATION MEASURES FOR AIR CONDITIONER ALTERATIONS, REPLACEMENTS, AND INSTALLATIONS IN EXISTING SINGLE-FAMILY DWELLING UNITS

WHEREAS, the City of Moreno Valley (“City”) is a General Law city organized pursuant to Article XI of the California Constitution; and

WHEREAS, the California Building Standards Commission (Commission) adopts the California Building Code, which includes regulations that govern structural safety, sustainability, and accessibility for various types of buildings in California; and

WHEREAS, the California Building Code is set forth in Title 24 of the California Code of Regulations, and the Commission amends it (for updates) on a periodic basis every three years, due in part to changes in technology, building practices, materials, etc.; and

WHEREAS, Title 24 includes in part the California Energy Code which contains energy conservation standards applicable to all residential and non-residential buildings throughout California; and

WHEREAS, although the state fully occupies the field of building standards which “generally” preempts cities from adopting their own individual building standards, cities are specifically authorized to amend the State’s building standards as contained in Title 24, which includes the California Energy Code, to establish more restrictive local building standards; and

WHEREAS, to establish more restrictive building standards, cities must make specific findings that justify the need to adopt more restrictive building standards based on local climatic, geological, or topographical conditions and such findings must be made available as a public record, and a copy of those findings, together with the modifications or changes expressly marked and identified to which each finding refers, must be filed with the Commission.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MORENO VALLEY DOES ORDAIN AS FOLLOWS:

Section 1. RECITALS

The above recitals are true and correct and are incorporated herein as though set forth at length herein.

Section 2. AMENDMENT TO CHAPTER 8.30 (CALIFORNIA ENERGY CODE) OF TITLE 8 (BUILDINGS AND CONSTRUCTION) ADOPTING THE 2025 CALIFORNIA ENERGY CODE, WITH AMENDMENTS TO TITLE 24, PART 6, SUBCHAPTER 9, SECTION 150.2

Chapter 8.30 (California Energy Code) of Title 8 (Buildings and Construction) of the Moreno Valley Municipal Code is hereby amended to adopt the 2025 California Energy Code, Title 24, Part 11, with amendments to Title 24, Part 6, Subchapter 9, Section 150.2, as follows:

§ 8.30.010 Adopted.

The California Energy Code, 2025 Edition, is adopted and made a part of this chapter by reference, subject to amendments to Title 24, Part 6, Subchapter 9, Section 150.2, requiring certain energy conservation measures for air conditioner alterations, replacements, and installations in existing single-family dwelling units.

§ 8.30.0020 Amendments to the California Energy Code - Energy Conservation Measures for Single-Family Air Conditioners

The amendments to the 2025 California Energy Code, as set forth in Title 24, Part 6, Subchapter 9, Section 150.2, appear in strikeouts (deletions) and underlines (additions) within this section as set forth below:

C. Entirely new or complete replacement space-conditioning systems installed as part of an alteration, shall include all the system heating or cooling equipment, including but not limited to: condensing unit cooling or heating coil, and air handler for split systems; or complete replacement of a packaged unit; plus entirely new or replacement duct system (Section 150.2(b)1Diia). Entirely new or complete replacement space-conditioning systems shall meet the requirements of Sections 150.0(h), 150.0(i), 150.0(j)1, 150.0(j)2, 150.0(m)1 through 150.0(m)10; 150.0(m)12; 150.0(m)13, 150.1(c)7, ~~150.2(b)1Fii~~, 150.2(b)1G, and TABLE 150.2-A. **Additionally, where an entirely new or complete replacement space conditioning system includes a new or replacement air-cooled air conditioner in Climate Zones 1 through 14 and 16, it shall meet the applicable requirements of Section 150.2(b)1Fiv. Where an entirely new or complete replacement space conditioning system includes a new or replacement heat pump, it shall meet the applicable requirements of Section 150.2(b)1Fv.**

...

F. Altered space-conditioning system - mechanical cooling. **Alterations which install new or replacement air-cooled air conditioners shall meet the applicable requirements of subsections i and iv. Alterations which install new or replacement heat pumps**

shall meet the applicable requirements of subsections i, ii, iii, and v. All other alterations to refrigerant containing components such as the compressor, condensing coil, evaporator coil, refrigerant metering device, or refrigerant piping, shall meet the applicable requirements of subsections i, ii, and iii. ~~When a space conditioning system is an air conditioner or heat pump that is altered by the installation or replacement of refrigerant containing system components such as the compressor, condensing coil, evaporator coil, refrigerant metering device or refrigerant piping, the altered system shall comply with the following requirements:~~

- i. All thermostats associated with the system shall be replaced with setback thermostats meeting the requirements of Section 110.2(c).
- ii. Air-cooled air conditioners in Climate Zones 2 and 8 through 15 and air-source heat pumps in all climate zones, including but not limited to ducted split systems, ducted package systems, small duct high velocity air systems, and minisplit systems, shall comply with Subsections a and b, unless the system is of a type that cannot be verified using the specified procedures. Systems that cannot comply with the requirements of 150.2(b)1Fii shall comply with Section 150.2(b)1Fiii.

Exception to Section 150.2(b)1Fii: Entirely new or complete replacement packaged systems for which the manufacturer has verified correct system refrigerant charge prior to shipment from the factory are not required to have refrigerant charge confirmed through field verification and diagnostic testing. The installer of these packaged systems shall certify on the Certificate of Installation that the packaged system was pre-charged at the factory and has not been altered in a way that would affect the charge. Ducted systems shall comply with minimum system airflow rate requirement in Section 150.2(b)1Fiia, provided that the system is of a type that can be verified using the procedure specified in RA3.3 or an approved alternative in RA1.

- a. Minimum system airflow rate shall comply with the applicable Subsection I or II below as confirmed through field verification and diagnostic testing in accordance with the procedures specified in Reference Residential Appendix Section RA3.3 or an approved alternative procedure as specified in Section RA1.
 - I. Small duct high velocity systems shall demonstrate a minimum system airflow rate greater than or equal to 250 cfm per ton of nominal cooling capacity; or
 - II. All other air-cooled air conditioner or air-source heat pump systems shall demonstrate a minimum system airflow rate greater than or equal to 300 cfm per ton of nominal cooling capacity; and

Exception 1 to Section 150.2(b)1Fiia: Systems unable to comply with the minimum airflow rate requirement shall demonstrate compliance using the procedures in Section RA3.3.3.1.5; and the system's thermostat shall conform to the specifications in Section 110.12.

Exception 2 to Section 150.2(b)1Fiia: Entirely new or complete replacement space conditioning systems, as specified by Section 150.2(b)1C, without zoning dampers may comply with the minimum airflow rate by meeting the applicable requirements in Tables-150.0-B or 150.0-C as confirmed by field verification and diagnostic testing in accordance with the procedures in Reference Residential Appendix Section RA3.1.4.4 and RA3.1.4.5. The design clean-filter pressure drop requirements of Section 150.0(m)12C for the system air filter device(s) shall conform to the requirements given in Tables150.0-B and 150.0-C.

- b. The installer shall charge the system according to manufacturer's specifications. Refrigerant charge shall be verified according to one of the following options, as applicable.
 - I. The installer and rater shall perform the standard charge verification procedure as specified in Reference Residential Appendix Section RA3.2.2, or an approved alternative procedure as specified in Section RA1; or
 - II. The installer shall perform the weigh-in charging procedure as specified by Reference Residential Appendix Section RA3.2.3.1 provided the system is of a type that can be verified using the RA3.2.2 standard charge verification procedure and RA3.3 airflow rate verification procedure or approved alternatives in RA1. The ECC-Rater shall verify the charge using RA3.2.2 and RA3.3 or approved alternatives in RA1.

Exception 1 to Section 150.2(b)1Fiib: When the outdoor temperature is less than 55° F and the installer utilizes the weigh-in charging procedure in Reference Residential Appendix Section RA3.2.3.1 to demonstrate compliance, the installer may elect to utilize the verification procedure in Reference Residential Appendix Section RA3.2.3.2. If the verification procedure in Section RA3.2.3.2 is used for compliance, the system's thermostat shall conform to the specifications in Section 110.12. Ducted systems shall comply with the minimum system airflow rate requirements in Section 150.2(b)1Fiia.

- iii. Air-cooled air conditioners in Climate Zones 2 and 8 through 15 and air-source heat pumps in all climate zones, including but not limited to ducted split systems, ducted package systems, small duct high velocity, and minisplit systems, which are of a type that cannot comply with the requirements of 150.2(b)1Fiib shall comply with subsections a and b, as applicable.

- a. The installer shall confirm the refrigerant charge using the weigh-in charging procedure specified in Reference Residential Appendix Section RA3.2.3.1, as verified by an ECC-Rater according to the procedures specified in Reference Residential Appendix RA3.2.3.2; and
- b. Systems that utilize forced air ducts shall comply with the minimum system airflow rate requirement in Section 150.2(b)1Fii provided the system is of a type that can be verified using the procedures in Section RA3.3 or an approved alternative procedure in Section RA1.

Exception to Section 150.2(b)1Fiii: Entirely new or complete replacement packaged systems for which the manufacturer has verified correct system refrigerant charge prior to shipment from the factory are not required to have refrigerant charge confirmed through field verification and diagnostic testing. The installer of these packaged systems shall certify on the Certificate of Installation that the packaged system was pre-charged at the factory and has not been altered in a way that would affect the charge. Ducted systems shall comply with minimum system airflow rate requirement in Section 150.2(b)1Fiiib, provided that the system is of a type that can be verified using the procedure specified in Section RA3.3 or an approved alternative in Section RA1.

iv. **New or replacement air-cooled air conditioners in Climate Zones 1 through 14 and 16 shall meet the requirements of Section 150.2(b)1Fiva or 150.2(b)1Fivb.**

a. Systems with existing duct distribution systems shall meet the following requirements:

I. In all climate zones, meet the airflow and fan efficacy requirements of Section 150.0(m)13B, 150.0(m)13C, or 150.0(m)13D.

Exception 1 to Section 150.2(b)1Fiva: Single zone central forced air systems and zonally controlled central forced air systems may demonstrate compliance with an airflow greater than or equal to 300 CFM per ton of nominal cooling capacity.

II. In all climate zones, meet the refrigerant charge verification requirements of Section 150.2(b)1Fii; and

III. In all climate zones, vented attics shall have insulation installed to achieve a U-factor of 0.020 or insulation installed at the ceiling level shall result in an insulated thermal resistance of R-49 or greater for the insulation alone; luminaires not rated for insulation contact must be replaced or retrofitted with a fireproof cover that allows for insulation to be installed directly over the cover; and

Exception 1 to Section 150.2(b)1FivaIII: Dwelling units with at least R-38 existing insulation installed at the ceiling level.

Exception 2 to Section 150.2(b)1FivaIII: Dwelling units where the alteration would directly cause the disturbance of asbestos unless the alteration is made in conjunction with asbestos abatement.

Exception 3 to Section 150.2(b)1FivaIII: Dwelling units with knob and tube wiring located in the vented attic.

Exception 4 to Section 150.2(b)1FivaIII: Where the accessible space in the attic is not large enough to accommodate the required R-value, the entire accessible space shall be filled with insulation provided such installation does not violate Section 806.3 of Title 24, Part 2.5.

Exception 5 to Section 150.2(b)1FivaIII: Where the attic space above the altered dwelling unit is shared with other dwelling units and the requirements of Section 150.2(b)1FivaIII are not triggered for the other dwelling units.

IV. In all climate zones, air seal all accessible areas of the ceiling plane between the attic and the conditioned space in accordance with Section 110.7.

Exception 1 to Section 150.2(b)1FivaIV: Dwelling units with at least R-38 existing insulation installed at the ceiling level.

Exception 2 to Section 150.2(b)1FivaIV: Dwelling units where the alteration would directly cause the disturbance of asbestos unless the alteration is made in conjunction with asbestos abatement.

Exception 3 to Section 150.2(b)1FivaIV: Dwelling units with atmospherically vented space heating or water heating combustion appliances located inside the pressure boundary of the dwelling unit.

b. Systems with entirely new or complete replacement duct systems shall meet the following:

I. R-8 duct insulation shall be installed for all new ducts located in unconditioned space; and

II. In all climate zones, meet the airflow requirements of Section 150.0(m)13B, 150.0(m)13C, or 150.0(m)13D and demonstrate an air-handling unit fan efficacy of less than or equal to 0.35 W/CFM.

III. In all climate zones, meet the refrigerant charge verification requirements of Section 150.2(b)1Fii;

Exception 1 to Section 150.2(b)1Fiv: Where the capacity of the existing main electrical service panel is insufficient to supply the electrical capacity of a heat pump and where the existing main electrical service panel is sufficient to supply a new or replacement air conditioner, as calculated according to the requirements of California Electrical Code Article 220.83 or Article 220.87, systems shall comply with the applicable requirements of Sections 150.2(b)1Fi, 150.2(b)1Fii, and 150.2(b)1Fiii. Documentation of electrical load calculations in accordance with Article 220 must be submitted to the enforcement agency prior to permitting for both the heat pump and proposed air conditioner.

Exception 2 to Section 150.2(b)1Fiv: Where the required capacity of a heat pump to meet the system selection requirements of Section 150.0(h)5 is greater than or equal to 12,000 Btu/h more than the greater of the required capacity of an air conditioner to meet the design cooling load OR the capacity of the existing air conditioner, systems shall comply with the applicable requirements of Sections 150.2(b)1Fi, 150.2(b)1Fii, and 150.2(b)1Fiii. Documentation of heating and cooling load calculations in accordance with 150.0(h) must be submitted to the enforcement agency prior to permitting for both the heat pump and proposed air conditioner.

- v. **In all climate zones, heat pumps with supplementary heat, including, but not limited to, electric resistance heaters or gas furnace supplementary heating, shall comply with Section 150.0(h)7 and shall lock out supplementary heating above an outdoor air temperature of no greater than 35°F.**

2. Performance approach.

The energy budget for alterations is expressed in terms of Long-term System Cost (LSC), and the altered component(s) and any newly installed equipment serving the alteration shall meet the applicable requirements of Subsections A, B, and C below.

- A. The altered components shall meet the applicable requirements of Sections 110.0 through 110.9, Sections 150.0(a) through (l), Sections 150.0(m)1 through 150.0 (m)10, and Sections 150.0(p) through (q). Entirely new or complete replacement mechanical ventilation systems as these terms are used in Section 150.2(b)1L, shall comply with the requirements in Section 150.2(b)1L. Altered mechanical ventilation systems shall comply with the requirements of Section 150.2(b)1M. Entirely new or complete replacement space-conditioning systems, and entirely new or complete replacement duct systems, as these terms are used in Sections 150.2(b)1C and 150.2(b)1Diia, shall comply with the requirements of Sections 150.0(m)12 and 150.0(m)13. **New or replacement air-cooled air conditioners in Climate Zones 1 through 14 and 16 shall meet the applicable requirements of Section 150.2(b)1Fiv.**

B. The standard design for an altered component shall be the higher efficiency of existing conditions or the requirements stated in Table 150.2-G. For components not being altered, the standard design shall be based on the existing conditions. When the third party verification option is specified as a requirement, all components proposed for alteration for which the additional credit is taken, must be verified by a certified ECC-rater.

Table 150.2-G Standard Design for an Altered Component

Altered Component	Standard Design Without Third Party Verification of Existing Conditions Shall be Based On	Standard Design With Third Party Verification of Existing Conditions Shall be Based On
Ceiling Insulation, Wall Insulation, and Raised-floor Insulation	<p>The requirements of Sections 150.0(a), (c), and (d). <u>The requirements of Section 150.2(b)1J for altered ceilings and for entirely new or complete replacement duct systems where the air handler and ducts are located within a vented attic.</u> <u>The requirements of Section 150.2(b)1Fiv for alterations which include new or replacement air-cooled air conditioners.</u></p>	The existing insulation R-value
Fenestration	The requirements of Section 150.1(c)3A.	The existing fenestration U-factor and SHGC values as verified.
Window Film	The requirements of Section 150.1(c)3A.	The existing fenestration in the alteration shall be based on TABLE 110.6-A and TABLE 110.6-B.
Doors	The U-factor of 0.20. The door area shall be the door area of the existing building.	If the proposed U-factor is < 0.20, the standard design shall be based on the existing U-factor value as verified. Otherwise, the standard design shall be based on the U-factor of 0.20. The door area shall

		be the door area of the existing building.
Space-Heating and Space-Cooling Equipment	Table 150.1-A for equipment efficiency requirements; Section 150.2(b)1C for entirely new or complete replacement systems; Section 150.2(b)1F for refrigerant charge verification, <u>airflow, and fan efficacy</u> requirements. <u>Section 150.2(b)1Fiv for new or replacement air-cooled air conditioners</u>	The existing efficiency levels.
Air Distribution System – Duct Sealing	The requirements of Sections 150.2(b)1D and 150.2(b)1E	The requirements of Sections 150.2(b)1D and 150.2(b)1E
Air Distribution System – Duct Insulation	The proposed efficiency levels. <u>The requirements of Sections 150.2(b)1D, and for new or replacement air-cooled air conditioners, Section 150.2(b)1Fiv.</u>	The existing efficiency levels.
Water Heating Systems	The requirements of Section 150.2(b)1Hii	The existing efficiency level.
Roofing Products	The requirements of Section 150.2(b)1l.	The requirements of Section 150.2(b)1l
All Other Measures	The proposed efficiency levels.	The existing efficiency levels.

C. The proposed design shall be based on the actual values of the altered components.

Section 3. CLIMATIC AND TOPOGRAPHIC FINDINGS

The amendments to the 2025 California Energy Code, set forth in this ordinance, which increase requirements for single-family dwelling units beyond that of the State’s requirements will reduce demands for local energy and resources, reduce regional pollution,

and promote a lower contribution to greenhouse gases emissions, which are intended to reduce the City's contributions to climate change and in turn reduce the impacts of climate change. Such amendments are necessary due to the City of Moreno Valley's local climatic and topographic conditions which, in addition to trapping locally produced pollutants produced by reliance on natural gas, trap pollutants generated in densely urbanized coastal areas, such as Orange County and Los Angeles County, because of the prevailing winds in and around the City of Moreno, the higher elevations situated to the south, north, and east of the City, and the presence of a reoccurring inversion layer that prevents such pollutants from dispersing upwards.

Section 4. COST-EFFECTIVENESS FINDINGS

As summarized in the Memorandum, dated August 15, 2025, prepared by Rincon Consultants, regarding "*Air Conditioning to Heat Pump Reach Code Cost Effectiveness Summary*," which is hereby incorporated by this reference, the amendments to the 2025 California Energy Code, outlined in this ordinance, will increase the energy efficiency requirements for newly installed and replaced air conditioning systems by increasing fan efficiency, attic insulation, and duct insulation above the requirements of the 2025 Building Code, and while heat pump units can be installed pursuant to the 2025 Building Code with no additional efficiency changes, both the additional energy efficiency pathway and heat pump pathway have been shown to be cost effective over the lifecycle of the project.

Section 5. CALIFORNIA ENVIRONMENTAL QUALITY ACT

This ordinance is exempt from CEQA under 15061(b)(3) on the grounds that these standards are more stringent than the State energy standards, there are no reasonably foreseeable adverse impacts and there is no possibility that the activity in question may have a significant effect on the environment.

Section 6. SEVERABILITY

The City Council declares that, should any provision, section, paragraph, sentence, or word of this ordinance be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this ordinance as hereby adopted shall remain in full force and effect.

Section 7. REPEAL OF CONFLICTING PROVISIONS

All the provisions of the Municipal Code as heretofore adopted by the City of Moreno Valley that are in conflict with the provisions of this ordinance are hereby repealed.

Section 8. EFFECTIVE DATE

This ordinance shall take effect thirty (30) days after its second reading, albeit the amendments (standards) shall not become operative until approved by the California

Energy Commission or upon the date the California Building Standards Commission accepts the ordinance for filing, whichever is later.

Section 9. CERTIFICATION

The City Clerk shall certify to the adoption of this ordinance, enter the same in the book for original ordinances of the City, and make a minute of passage and adoption thereof in the records of the proceedings of the City Council, in the minutes of the meeting at which this ordinance is adopted.

Ulises Cabrera, Mayor
City of Moreno Valley

ATTEST:

M. Patricia Rodriguez, Acting City Clerk

APPROVED AS TO FORM:

Steven B. Quintanilla, City Attorney