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ORDINANCE NO. ORD-2019-019

ORDINANCE OF THE CITY OF SANTA ROSA ADOPTING BY REFERENCE, WITH LOCAL AMENDMENTS, THE 2019 CALIFORNIA ENERGY CODE INCLUDING ALL-ELECTRIC, LOW-RISE RESIDENTIAL REACH CODE

THE PEOPLE OF THE CITY OF SANTA ROSA DO ENACT AS FOLLOWS:

Section 1. Chapter 18-33 of the Santa Rosa City Code California Energy Code

Chapter 18-33 of the Santa Rosa City Code is amended to read as follows:

"Chapter 18-33 CALIFORNIA ENERGY CODE

18-33.010 Citation of California Energy Code.

For purposes of citation, all sections of the California Energy Code, Part 6 of Title 24, 2019 Edition, published by the International Code Council, Inc. and the California Building Standards Commission, including tables and appendices thereto, as adopted by reference and amended in this Title 18, are renumbered by adding "18-33." before each section number.

18-33.040 Requirement for All Electric Construction in New Construction Low-Rise Residential Buildings.

A. Low-Rise Residential New Construction shall meet the definition of an all-electric building.
B. The requirements of this section shall be deemed objective planning standards under Government Code section 65913.4 and objective development standards under Government Code section 65589.5.

18-33.050 Exception for Attached Accessory Dwelling Units.

The requirements of this Chapter shall not apply to attached Accessory Dwelling Units when added to existing dwellings.

18-33.100.1(b) Definitions.

California Energy Code Section 100.1(b) is amended to add the following definitions:

ALL-ELECTRIC BUILDING or ALL-ELECTRIC DESIGN is a building or building design that uses a permanent supply of electricity as the source of energy for all space heating, water heating (including pools and spas), cooking appliances, and clothes drying appliances, and has no natural gas or propane plumbing installed in the building.

CERTIFIED ENERGY ANALYST is a person registered as a Certified Energy Analyst with the California Association of Building Energy Consultants as of the date of submission of a Certificate of Compliance as required under Section 10-103.
FREE STANDING ACCESSORY DWELLING UNIT is a detached building that is not intended for sale separate from the primary residence, on a lot that is zoned for single-family or multifamily use, located on the same lot as an existing dwelling, and does not exceed 1,200 square feet of total floor area.

18-33.150.0 Mandatory Measures.

California Energy Code Section 150.0 is amended to read as follows:

150.0 Mandatory Measures. Low-rise residential buildings shall comply with the applicable requirements of Sections 150(a) through 150.0(t).
NOTE: The requirements of Sections 150.0(a) through 150.0(t) apply to newly constructed buildings. Sections 150.2(a) and 150.2(b) specify which requirements of Sections 150.0(a) through 150.0(s) also apply to additions or alterations.

18-33.150.0(e) Installation of Fireplaces.

California Energy Code Section 150.0(e) is amended to read as follows:

150.0(e) Installation of Fire places. If a masonry or factory-built fireplace is installed, it shall comply with Section 110.5, Section 4.503 of Part 11, and shall have the following:

1. Closeable metal or glass doors covering the entire opening of the firebox; and
2. A combustion air intake to draw air from the outside of the building, which is at least 6 square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device; and EXCEPTION to Section 150.0(e)1B: An outside combustion-air intake is not required if the fireplace will be installed over concrete slab flooring and the fireplace will not be located on an exterior wall.
3. A flue damper with a readily accessible control.

18-33.150.0(h)4 Space Conditioning Equipment.

California Energy Code Section 150.0(h)4 is amended to read as follows:

150.0(h)4 Space-Conditioning Equipment. Space-conditioning equipment shall meet the requirements for an All Electric Building per Section 100.1(b)

18-33.150.0(n)1 Water Heating System.

California Energy Code Section 150.0(n)1 is amended to read as follows:

150.0(n)1 Water Heating System. Water Heating System shall meet the requirements for an All Electric Building per Section 100.1(b)

18-33.150.0(p)5 Pool and Spa Heating Systems.

California Energy Code Section 150.0(p)5 is added to read as follows:

150.0(p)5 Pool and Spa Heating Systems. Pool and Spa Heating Systems shall meet the requirements for an All Electric Building per Section 100.1(b)

18-33.150.0(s) Clothes Drying and Cooking Equipment.

California Energy Code Section 150.0(s) is added to read as follows:

150.0(s) Clothes Drying and Cooking Equipment. Clothes Drying and Cooking equipment shall meet the requirements for an All Electric Building per Section 100.1(b).

18-33.150.0(t) Requirement for All Electric Buildings.

California Energy Code Section 150.0(t) is added to read as follows:

150.0(t) Requirement for All Electric Buildings. The building shall meet the definition of an All Electric Building per Section 100.1(b).

18-33.150.1(c)8 Domestic Water Heating Systems.

California Energy Code Section 150.1(c)8 is amended to read as follows:

150.1(c)8 Domestic Water Heating Systems. Water-heating systems shall meet the requirements of either A B or C. For recirculation distribution systems serving individual dwelling unit, only Demand Recirculation Systems with manual on/off control as specified in the Reference Appendix RA4.4.9 shall be used:

A. For systems serving individual dwelling units, the storage tank be located in the garage or conditioned space. In addition, one of the following:

i. A compact hot water distribution system as specified in the Reference Appendix RA4.4.6 and a drain water heat recovery system that is field verified as specified in the Reference Appendix RA3.6.9; or

ii. For Climate Zones 2 through 15, a photovoltaic system capacity of 0.3 kWdc larger than the requirement specified in Section 150.1(c)14; or

B. For systems serving multiple dwelling units, a central water-heating system that includes the following components shall be installed:

i. Heat pump water heating system; and

ii. A recirculation system that meets the requirements of Sections 110.3(c)2 and 110.3(c)5, includes two or more separate recirculation loops serving separate dwelling units, and is capable of automatically controlling the recirculation pump operation based on measurement of hot water demand and hot water return temperature; and

EXCEPTION to Section 150.1(c)8Bii: Buildings with eight or fewer dwelling units may use a single recirculation loop.

iii. A solar water-heating system meeting the installation criteria specified in Reference Residential Appendix RA4 and with a minimum solar savings fraction of either a or b below:

a. A minimum solar savings fraction of 0.20 in Climate Zones 1 through 9 or a;

b. A minimum solar savings fraction of 0.15 in Climate Zones 1 through 9. In addition, a drain water heat recovery system that is field verified as specified in the Reference Appendix RA3.6.9.

C. A water-heating system serving multiple dwelling units determined by the Building Official to use no more energy than the one specified in subsection B above.

18-33 Table 150.1-A Component Package – Single Family Standard Building Design.

California Energy Code Table 150.1-A is amended to read as follows:

				Climate Zone															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HVAC SYSTEM	Space Heating[9]	Electric-Resistance Allowed		No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
		~~If gas, AFUE~~		~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~	~~MIN~~
		If Heat Pump, HSPF[7]		MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN
	Space Cooling	SEER		MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN
		Refrigerant Charge Verification or Fault Indicator Display		NR	REQ	NR	NR	NR	NR	NR	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	NR
		Whole House Fan[8]		NR	NR	NR	NR	NR	NR	NR	REQ	REQ	REQ	REQ	REQ	REQ	REQ	NR	NR
	Central System Air Handlers	Central Fan Integrated Ventilation System Fan Efficacy		REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ
	Ducts[10]	Roof/Ceiling Options B	Duct Insulation	R-8	R-8	R-6	R-8	R-6	R6	R-6	R-8	R-8	R-8	R-8	R-8	R-8	R-8	R-8	R-8
			§150.1(c)9A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Roof/Ceiling Option C	Duct Insulation	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6	R-6
			§150.1(c)9B	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ
Water Heating	All Buildings			System Shall meet Section 150.1(c)8															

18-33.150.1(c)15 Additional Prescriptive Requirements for Single Family Buildings.

California Energy Code Section 150.1(c)15 is added to read as follows:

15. Additional Prescriptive Requirements for Single Family buildings.

A. **[CZ 1-6 and 9-16]** Duct System Sealing and Leakage Testing. The duct systems shall exceed the minimum mandatory requirements of Section 150.0(m)11 A and B such that the total duct system leakage shall not exceed 2 percent of the nominal system air handler air flow.

B. **[ALL EXCEPT CZs 6-9 AND 16]** Slab insulation. 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.

C. **[ALL EXCEPT CZ 7]** Compact Hot Water. 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 Reference Appendices RA4.4.6.

D. **[ALL EXCEPT CZ 7] Ducted Central Forced Air Heating Systems.** Central Fan Integrated Ventilation Systems. The duct distribution system shall be designed reduce external static pressure to meet a maximum fan efficacy equal to:

Gas Furnaces: 0.35 Watts per cfm

Heat Pumps: 0.45 Watts per cfm,

according to the procedures outlined in the 2019 Reference Appendices RA 3.3.

E. **[All CZs]** Energy Storage. A battery energy storage system with a minimum capacity equal to 5 kWh shall be installed. The system shall have automatic controls programmed to charge anytime PV generation is greater than the building load and discharge to the electric grid, beginning during the highest priced time of use hours of the day.

18-33.150.1(c)16 Additional Prescriptive Requirements for Single Family Buildings.

California Energy Code Section 150.1(c)16 is added to read as follows:

16. Additional Prescriptive Requirements for Multifamily buildings.

A. **[ALL EXCEPT CZs 3,5,7]** Ducts in Conditioned Space. All ductwork shall be located entirely in conditioned space with ducts tested to have less than or equal to 25 cfm leakage to outside. Ductwork shall meet the requirements of Verified Low Leakage Ducts in Conditioned Space (VLLDCS) in the 2019 Reference Appendices RA3.1.4.3.8.

B. **[ALL EXCEPT CZs 1,3,5,16.]** Roofing Products. Low-rise residential buildings with steep-sloped roofs shall have a minimum aged solar reflectance of 0.25.

C. **[ALL EXCEPT CZs 6-9]** Slab insulation. Slab floor perimeter insulation shall be installed with an R-value of 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.

D. **[ALL EXCEPT CZ 8]** Compact Hot Water. 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 Reference Appendices RA4.4.6.

E. **[All CZs]** 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 Reference Residential Appendix RA3.3. Central Fan Integrated Ventilation Systems shall be certified to the Energy Commission as Intermittent Ventilation Systems as specified in Reference Residential Appendix RA3.7.4.2.

F. **[ALL CZs]** Solar photovoltaic. A PV system meeting the minimum qualification requirements as specified in Joint Appendix JA11 sized to offset 100% of the estimated site electricity load shall be installed. The plans shall include calculations for the electricity load and PV production.

G. **[All CZs]** Energy Storage. A battery energy storage system with a capacity equivalent to the PV system shall be installed. The system shall have automatic controls programmed to charge anytime PV generation is greater than the building load and discharge to the electric grid, beginning during the highest priced time of use hours of the day."

Section 2. **Findings of Fact.** The Council finds that the standards for buildings within the City of Santa Rosa should comply with the CALIFORNIA ENERGY CODE, 2019 Edition, as further amended by this Ordinance. Based on materials presented by the Chief Building Official of the City of Santa Rosa, the Council finds that it is necessary to make procedural and administrative modifications and changes to the model code as amended and adopted by the State of California and specifically adopted and amended in this Ordinance. Such standards are needed for efficient, economical, and expeditious enforcement of the Santa Rosa City Code, Title 18, Chapter 18-33 California Energy Code. The Council further finds and determines, based on the materials and reports presented, that the substantive amendments to the model code provide supporting analysis on how it was determined that the proposed local standard will save more energy than the current provisions in Title 24, Part 6, and be cost-effective. If any non-administrative or non-procedural model code provision or applicable State of California amendment is in conflict with this ordinance, it is the intent of this ordinance to amend or delete such provision when findings of local conditions are stated as required by sections 17958.5 and 17958.7 of the Health and Safety Code.
Said local conditions are:

A. To address local and regional climate conditions, proposed amendments are derivative of an effort to enact local requirements to limit greenhouse gasses and increase energy-efficiency in alignment with Santa Rosa's Climate Action plan.

Such local conditions apply to local amendments and modifications to the State of California adopted model codes as indicated below:

SRCC 18-33 A

Section 3. **Environmental Review.** The Council determines that this ordinance establishes standards and procedures for issuing building and construction permits and is:

1. Exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines section 15061 (b)(3) in that the standards set forth in the Ordinance are more protective of the environment than the State Building Standards Code, and there is no possibility that the activity in question may have a significant effect on the environment and,
2. Exempt from CEQA pursuant to CEQA Guidelines sections 15307 and 15308 in that the standards set forth in the Ordinance assure the maintenance, restoration, enhancement or protection of natural resources and the environment.

Section 3. Duty. Notwithstanding any provision contained in Title 18, Chapter 18-33 of the Santa Rosa City Code, whenever the words "shall", "will", "must", "is charged with the enforcement of", or words of similar import, are used in said chapters to establish a responsibility of the City of Santa Rosa, or of the members of any board, commission, department, officers of the City, including, but not limited to the Council and City Planning Commission thereof, or of any officer, official, or employee of the City of Santa Rosa, it is the legislative intent that such words shall establish the authority and direction to exercise professional judgment in the application and interpretation of this Code, as distinguished from a mandatory duty. No mandatory duty with respect to the application and interpretation of this Code is imposed upon any member of the Council, or upon any board or commission of the City of Santa Rosa, or upon any department, officer, official, or employee of the City of Santa Rosa by the provisions of said chapters, and said chapters shall not be construed so as to hold the City of Santa Rosa or any member of the Council or of any board, commission, or department of the City, or any officer, official or employee of the City of Santa Rosa responsible or liable for any damage to persons or property by reason of any action taken or by reason of any approval given or not given, under the provisions of said chapters or in connection with any such members, officers, or employees duties set forth in said chapters.

Section 4. Severability. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be unconstitutional or invalid for any reason, such decision shall not affect the remaining portions of this ordinance. The Council declares that it would have passed this ordinance and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, clauses or phrases be declared unconstitutional or invalid for any reason.

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Section 5. **Effective Date.** This ordinance shall take effect on January 1, 2020, upon passage by the Council and publication pursuant to Section 8 of the Santa Rosa City Charter. The non-administrative or non-procedural provisions of this Title that exist as of the date of adoption of this ordinance shall remain in effect and applicable to those specific permit applications that were submitted for plan review prior to the effective date of this ordinance. For purposes of this section, the date of submittal for master planned projects shall be the date of submittal for plot plan review.

This ordinance was introduced by the Council of the City of Santa Rosa on November 12, 2019.

IN COUNCIL DULY PASSED AND ADOPTED this 19th day of November, 2019.

AYES: (7) Mayor Schwedhelm, Vice Mayor Fleming, Council Members Combs, Olivares, Rogers, Sawyer, Tibbetts

NOES: (0)

ABSENT: (0)

ABSTAIN: (0)

ATTEST: Dina Manis (Nov 25, 2019)
Acting City Clerk

APPROVED: J Schwedhelm
Mayor

APPROVED AS TO FORM:
Sue Gallagher (Nov 23, 2019)
City Attorney