

**RESOLUTION NO. 21-9024**

**A RESOLUTION OF THE CITY OF SANTA CLARA, CALIFORNIA  
ESTABLISHING AN EFFECTIVE DATE FOR ORDINANCE 2034  
- BUILDING ELECTRIFICATION AND ELECTRIC VEHICLE  
REACH CODE**

**BE IT RESOLVED BY THE CITY OF SANTA CLARA AS FOLLOWS:**

**WHEREAS**, Santa Clara's Climate Action Plan, adopted in 2013, includes strategies to reduce greenhouse gas (GHG) emissions and is in the process of being updated to further strengthen emissions reductions;

**WHEREAS**, every three years, the State of California adopts new building standards that are organized in Title 24 of the California Code of Regulations, referred to as the California Building Standards Code. The most recent code cycle was adopted in 2019 with an effective date of January 1, 2020;

**WHEREAS**, this code cycle is an opportunity for cities and counties to adopt optional local energy code amendments, known as reach codes, that exceed or enhance State code standards. Historically, jurisdictions have adopted reach codes to the California Energy Code (Title 24, Part 6) and the California Green Building Standards Code (CALGreen) (Title 24, Part 11), to meet local climate action goals;

**WHEREAS**, on November 19, 2019, the City Council adopted Ordinance No. 2008, which adopted the 2019 California Energy Code in Section 15.36.010 of the Santa Clara City Code and adopted the 2019 California Green Building Standards Code in Section 15.38.010 of the Santa Clara City Code;

**WHEREAS**, on March 2, 2021, the City Council provided direction to proceed with preparing an all-electric reach code with EV charging requirements for Council consideration;

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**WHEREAS**, on July 13, 2021, during a City Council CAP study session, the City Council confirmed the inclusion of an all-electric reach code with EV charging to be incorporated into the proposed CAP Update;

**WHEREAS**, on October 19, 2021 the City Council introduced Ordinance No. 2034 - an All-electric Building Electrification Reach Code Ordinance Including Electric Vehicle (EV) Charging that Amends Chapter 15.36 (Energy Code) and Chapter 15.38 (Green Building Code) of Title 15 (Buildings and Construction) of the Santa Clara City Code;

**WHEREAS**, after ordinance adoption, these local amendments to the Energy Code must be approved by the California Energy Commission (CEC) and filed with the California Building Standards Commission (CBSC) for the amendments to take effect;

**WHEREAS**, The All-electric and EV Charging Reach Code Ordinance No. 2034 takes effect January 1, 2022;

**WHEREAS**, it is understood projects which have already received Planning Permits prior to January 1, 2022 could be impacted without the inclusion of a "pipeline" provision in the approved effective date of the Ordinance;

**WHEREAS**, it is understood that single-family projects which are already in the City's design review process, and which are potentially designed to include natural gas appliances could be impacted without the inclusion of a "pipeline" provision in the effective date of the Ordinance; and,

**WHEREAS**, on November 19, 2022, the City Council considered this resolution at a formally noticed public meeting, at which time all interested persons were able to provide testimony and present evidence, both in support of and in opposition to the proposed resolution.

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**NOW THEREFORE, BE IT FURTHER RESOLVED BY THE CITY OF SANTA CLARA AS FOLLOWS:**

1. That Ordinance No. 2034, All-electric building electrification reach codes including EV charging, would apply to all new building permit applications filed with the City on or after January 1, 2022 pending California Energy Commission approval.
2. That the following project types will not be subject to the Ordinance requirements:
  - A. Projects which have received Planning Permits prior to the January 1, 2022 effective date.
  - B. Single-family projects that apply for building permits or receive planning permits prior to April 1, 2022.
3. Effective date. This resolution shall become effective concurrently with the effective date of Ordinance 2034.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE COPY OF A RESOLUTION PASSED AND ADOPTED BY THE CITY OF SANTA CLARA, CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 16<sup>TH</sup> DAY OF NOVEMBER, 2021, BY THE FOLLOWING VOTE:

AYES:	COUNCILORS:	Becker, Chahal, Hardy, Jain, Park, and Watanabe, and Mayor Gillmor
NOES:	COUNCILORS:	None
ABSENT:	COUNCILORS:	None
ABSTAINED:	COUNCILORS:	None

ATTEST:

  
NORA PIMENTEL, MMC  
ASSISTANT CITY CLERK  
CITY OF SANTA CLARA

Attachments incorporated by reference:  
1. Ordinance 2034

## **ORDINANCE NO. 2034**

**AN ORDINANCE OF THE CITY OF SANTA CLARA, CALIFORNIA TO AMEND CHAPTER 15.36 (ENERGY CODE) AND CHAPTER 15.38 (GREEN BUILDING STANDARDS CODE) OF TITLE 15 (BUILDINGS AND CONSTRUCTION) OF "THE CODE OF THE CITY OF SANTA CLARA, CALIFORNIA" TO ADOPT PROVISIONS OF THE 2019 CALIFORNIA ENERGY CODE AND THE 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE WITH CERTAIN EXCEPTIONS, MODIFICATIONS, AND ADDITIONS TO INCREASE BUILDING EFFICIENCY AND INCREASE REQUIREMENTS RELATED TO ELECTRIC VEHICLE CHARGING STATIONS**

**BE IT ORDAINED BY THE CITY OF SANTA CLARA AS FOLLOWS:**

**WHEREAS**, Santa Clara's Climate Action Plan, adopted in 2013 includes strategies to reduce greenhouse gas (GHG) emissions and is in the process of being updated to further strengthen emissions reductions;

**WHEREAS**, pursuant to Sections 17922, 17958, 17958.5 and 17958.7 of the California Health and Safety Code, the City may adopt modifications to the provisions of the California Building Standards Code that are reasonably necessary to protect the health, welfare and safety of the residents of Santa Clara because of local climatic, geological or topographical conditions;

**WHEREAS**, on November 19, 2019, the City Council adopted Ordinance No. 2008 adopted the 2019 California Energy Code in Section 15.36.010 of the Santa Clara City Code and adopted the 2019 California Green Building Standards Code in Section 15.38.010 of the Santa Clara City Code;

**WHEREAS**, the City now intends to adopt modifications to the Energy Code and Green Building Standards Code to address local geological, topographical, and climatic conditions;

**WHEREAS**, the City Council hereby makes the following findings with respect to local geological, topographical and climatic conditions relating to the amendments to the California Energy Code and California Green Building Standards Code:

a) Santa Clara is located in the Santa Clara Valley, which is densely populated and located in an area of high seismic activities. Santa Clara is situated on alluvial soils between San Francisco Bay and the San Andreas Fault zone. The City's location makes it particularly vulnerable to damage by seismic events. The relatively young geological processes that have created the San Francisco Bay Area are still active today. Seismically, the City sits between two active earthquake faults (San Andreas and the Hayward/Calaveras) and numerous potentially active faults.

b) Concern for fire-life safety associated with gas appliances and associated piping located in the ground and in the buildings increases with the risk of explosion or fire if there is a structural failure due to a seismic event considering the increasing number of buildings in the region.

c) Severe seismic events could disrupt communications, damage gas mains, and place extreme demands on the limited and widely dispersed resources of the Public Safety Department necessary for the life safety needs of the community.

d) The local geographic, topographic, and climatic conditions pose an increased hazard in acceleration, spread, magnitude, and severity of potential fires in the City, and may cause a delayed response from emergency responders, allowing further growth of the fire.

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e) Over the next century, increasing levels of atmospheric greenhouse gas concentrates are expected to result in global temperature increases, causing a variety of local changes, including extreme weather conditions, sea level rise, more frequent heat waves and extended period of drought. Sea level rise as a result of climate change will have a dramatic local impact on the City. The City's northern area borders the southern end of the San Francisco Bay and is particularly vulnerable to sea level rise and is at an increased risk of flooding. Increased heat as a result of climate change can have a local impact on the health, safety, and welfare of the City's population, especially those without resources to purchase air conditioning, the elderly, disabled, or those with children. Failure to address and substantially reduce Greenhouse Gas creates an increased risk to the health, safety and welfare of the City residents.

f) Amendments to the California Codes have been adopted in the past by the City Council based on specific findings of local geographic, topographic and climatic conditions; and the City Council hereby reaffirms such findings and confirms that the facts on which such findings were based continue to exist.

g) The provisions of this Ordinance establishing certain more restrictive standards than the California Codes will better serve to prevent or minimize structural and environmental damage resulting from local conditions.

**WHEREAS**, the City Council hereby makes the following additional findings with respect to cost effectiveness of any amendments to the California Codes for which such findings are required:

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a) An August 1, 2019 Low Rise Residential Reach Code Cost Effectiveness Study prepared by Frontier Energy, Inc. and Misti Bruceri & Associates, LLC, funded by California utility ratepayers and submitted to the California Energy Commission, supports and documents the cost-effectiveness of the Ordinance.

b) A July 25, 2019 Non-residential New Construction Reach Code Cost Effectiveness Study prepared by TRC Advanced Energy and Energy Soft, funded by California utility ratepayers and submitted to the California Energy Commission, further supports and documents the cost-effectiveness of the Ordinance.

c) This Ordinance is in alignment with the cost effectiveness studies referenced above and therefore the City Council finds them to be cost-effective.

d) None of the provisions of this Ordinance change minimum efficiency standards, and therefore, this Ordinance is not preempted by federal appliance regulations.

**NOW THEREFORE, BE IT FURTHER ORDAINED BY THE CITY OF SANTA CLARA AS FOLLOWS:**

**SECTION 1: Recitals.** The recitals set forth above are hereby incorporated herein by this reference.

**SECTION 2: Chapter 15.36 Amended.** Chapter 15.36 (Energy Code) of Title 15 (Buildings and Construction) of the Santa Clara City Code is hereby repealed and re-adopted to read as stated in Exhibit "A", attached hereto and incorporated herein by this reference.

**SECTION 3: Chapter 15.38 Amended.** Chapter 15.38 (Green Building Code) of Title 15 (Buildings and Construction) of the Santa Clara City Code is hereby repealed and re-adopted to read as stated in Exhibit "B", attached hereto and incorporated herein by this reference.

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**SECTION 4: Statutory References, Inclusions of Amendments and Additions.**

Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Santa Clara City Code, or of any other ordinance of the City of Santa Clara, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

**SECTION 5: Interpretations.** In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

**SECTION 6: Findings.** To the extent the changes and modifications set forth in this ordinance to the 2019 California Building Standards Code are deemed more restrictive than the standards contained in the 2019 California Building Standards Code, thus requiring findings describing local conditions that justify such modifications, the Council finds and determines that the changes are reasonably necessary because of local climatic, geologic, or topographic conditions, as set forth in the recitals to this ordinance.

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**SECTION 7: Savings clause.** The changes provided for in this ordinance shall not affect any offense or act committed or done or any penalty or forfeiture incurred or any right established or accruing before the effective date of this ordinance; nor shall it affect any prosecution, suit or proceeding pending or any judgment rendered prior to the effective date of this ordinance. All fee schedules shall remain in force until superseded by the fee schedules adopted by the City Council.

**SECTION 8: Effective date.** This ordinance shall take effect on January 1, 2022, and prior to its final adoption it shall be published in accordance with the requirements of Section 808 and 812 of "The Charter of the City of Santa Clara, California." Notwithstanding the foregoing, the local modifications to the California Energy Code shall not be enforced until the California Energy Commission has made a finding that the standards will require buildings to be designed to consume less energy than permitted by the California Energy Code.

PASSED FOR THE PURPOSE OF PUBLICATION this 19th day of October, 2021, by the following vote:

AYES:	COUNCILORS:	Becker, Chahal, Hardy, Jain, Park, and Watanabe, and Mayor Gillmor
NOES:	COUNCILORS:	None
ABSENT:	COUNCILORS:	None
ABSTAINED:	COUNCILORS:	None

ATTEST:



NORA PIMENTEL, MMC  
ASSISTANT CITY CLERK  
CITY OF SANTA CLARA

Attachments incorporated by reference:

1. Exhibit A: Chapter 15.36 – Energy Code
2. Exhibit B: Chapter 15.38 – Green Building Standards Code

## **EXHIBIT A**

### **CHAPTER 15.36 —ENERGY CODE**

- 15.36.010. Title.**
- 15.36.020. Adoption by Reference.**
- 15.36.030. Definitions.**
- 15.36.040. Scope.**
- 15.36.050. Space-conditioning equipment.**
- 15.36.060. Service water-heating systems and equipment.**
- 15.36.070. Pool and spa systems and equipment.**
- 15.36.080. Natural gas pilot lights.**
- 15.36.090. Solar requirements.**

#### **15.36.010. Adoption of Energy Code.**

This chapter shall be known and may be cited and referred to as the “Energy Code for the City of Santa Clara.”

#### **15.36.020. Adoption by reference.**

The “2019 California Energy Code” adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 6 is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the “Energy Code” for the City of Santa Clara.

#### **15.36.030. Definitions.**

2019 California Energy Code Section 100.1(b) (Definitions) is hereby amended by adding the following definitions:

**ALL ELECTRIC BUILDING:** is a building or building design that has no natural gas or propane plumbing installed within the building, and that uses electricity as the source of energy for its space heating, water heating (including pools and spas), cooking appliances, and clothes drying appliances not excluding any exceptions as defined below. All Electric Buildings may include solar thermal pool heating.

**NEW CONSTRUCTION:** For the purposes of All-Electric Building requirements, “newly constructed buildings” shall include the buildings defined in Section 100.1 as well as newly constructed additions and improvements in existing buildings where more than 50 percent of the exterior walls are removed or 50 percent of the wall plate height is raised. The Chief Building Official shall make the final determination regarding the application of this section.

For the purposes of All-Electric Building requirements, “newly constructed buildings” shall not include newly constructed additions and tenant improvements in existing buildings except as defined above.

**15.36.040 Scope.**

- (a) Any project that has submitted an application deemed complete by the Director of Community Development for either a planning or building entitlement prior to January 1, 2022, is exempt from the All-Electric Building requirements.
- (b) 2019 California Energy Code Section 100.0(e)2A (Newly constructed buildings – All newly constructed buildings) is hereby amended to read as follows:

**100.0(e)2A. All newly constructed buildings.** Sections 110.0 through 110.12 apply to all newly constructed buildings within the scope of Section 100.0(a). In addition, newly constructed buildings shall meet the requirements of Subsections B, C, D or E, as applicable, and shall be an All-Electric Building as defined in Section 100.1(b).

**Exception 1:** F, H, L Occupancies may utilize natural gas and shall provide installed prewiring for future use of electric appliances.

**Exception 2:** Exception for public agency owned and operated emergency centers. To take advantage of this exception, applicant shall provide third party verification that All-Electric space heating requirement, or secondarily propane heating, is not cost effective and feasible.

**Exception 3:** Hotels with eighty or more guestrooms may utilize natural gas in on-site commercial laundry facilities only.

**Exception 4:** Non-residential kitchens may not utilize natural gas for cooking appliances unless the applicant establishes that there is not an all-electric option for the kitchen, or secondarily a propane option, using commercially available technology. If the Building Official grants an exception, EnergySTAR rated natural gas appliances shall be used.

**Exception 5:** If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the Energy Code, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Code using commercially available technology and an approved calculation method or if it is demonstrated that there is equivalent greenhouse gas reduction, then the Building Official may grant an exception.

**Exception Process:**

- a. Granting of Exception. If the Building Official or designee determines that it is infeasible for the applicant to fully meet the requirements of this Chapter and one of the exceptions listed above applies, 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 exception 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.

- b. Denial of Exception. 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.
- c. Appeals of Exception Denial. If denied the infeasibility exception, the applicant may appeal in writing to the Director of Community Development. The 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 Director shall be final.

**Note 1:** If natural gas appliances are used in any of the above exceptions 1-5, natural gas appliance locations must also be electrically pre-wired for future electric appliance installation. They shall include the following:

- 1. A dedicated circuit, phased appropriately, for each appliance, with a minimum amperage requirement for a comparable electric appliance (see manufacturer's recommendations) with an electrical receptacle or junction box that is connected to the electric panel with conductors of adequate capacity, extending to within 3 feet of the appliance and accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors;
- 2. Both ends of the conductor or conduit shall be labeled with the words "For Future Electric appliance" and be electrically isolated;
- 3. A circuit breaker shall be installed in the electrical panel for the branch circuit and labeled for each circuit, an example is as follows (i.e. "For Future Electric Range;") and
- 4. All electrical components, including conductors, receptacles, junction boxes, or blank covers, related to this section shall be installed in accordance with the California Electrical Code.

**Note 2:** If any of the exceptions 1-5 are granted, the Building Official shall have the authority to approve alternative materials, design and methods of construction or equipment per CBC 104.

**15.36.050 Space-conditioning equipment.**

2019 California Energy Code Section 110.2 (Mandatory Requirements for Space-Conditioning Equipment), first paragraph, is hereby amended to read as follows:

**Certification by Manufacturers.** Any space-conditioning equipment listed in this section may be installed only if the manufacturer has certified to the Commission that the equipment complies with all the applicable requirements of this section and section 100.0(e)2A.

**15.36.060 Service water-heating systems and equipment.**

2019 California Energy Code Section 110.3 (Mandatory Requirements for Service Water-Heating Systems and Equipment), subsection (a), first paragraph, is hereby amended to read as follows:

**Certification by manufacturers.** Any service water-heating system or equipment may be installed only if the manufacturer has certified that the system or equipment complies with all of the requirements of this subsection and section 100.0(e)2A for that system or equipment.

**15.36.070 Pool and spa systems and equipment.**

2019 California Energy Code Section 110.4 (Mandatory Requirements for Pool and Spa Systems and Equipment), subsection (a), first paragraph, is hereby amended to read as follows:

**(a) Certification by manufacturers.** Any pool or spa heating system or equipment may be installed only if the system or equipment meets the requirements of section 100.0(e)2A and the manufacturer has certified that the system or equipment has all of the following:

**15.36.080. Natural gas pilot lights.**

2019 California Energy Code Section 110.5 (Natural Gas Central Furnaces, Cooking Equipment, Pool and Spa Heaters, and Fireplaces: Pilot Lights Prohibited), first paragraph, is amended as follows:

**110.5.** Any natural gas system or equipment listed below may be installed only if it meets the requirements of Section 100.0(e)2A and does not have a continuously burning pilot light:

**15.36.090. Solar requirements.**

- (a) **Title.** 2019 California Energy Code Section 110.10 (Mandatory Requirements for Solar-Ready Buildings), title, is hereby amended to read as follows:

**SECTION 110.10 – MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS AND SOLAR PANEL SYSTEM REQUIREMENTS FOR NON-RESIDENTIAL NEW BUILDINGS**

- (b) **Hotel/Motel Occupancies and High-rise Multifamily Buildings.** 2019 California Energy Code Section 110.10(a)3 (Covered Occupancies – Hotel/Motel

Occupancies and High-rise Multifamily Buildings) is hereby amended to read as follows:

**3. Hotel/Motel Occupancies and High-rise Multifamily Buildings.** Hotel/motel occupancies and high-rise multifamily buildings with ten habitable stories or fewer shall comply with the requirements of Section 110.10(b) through 110.10(d) and Table 110.10-A.

- (c) **Nonresidential Buildings.** 2019 California Energy Code Section 110.10(a)4 (Covered Occupancies – Nonresidential Buildings) is hereby amended to read as follows:

**4. Nonresidential Buildings.** Nonresidential buildings with three habitable stories or fewer, other than healthcare facilities, shall comply with the requirements of Section 110.10(b) through 110.10(d) and Table 110.10-A.

- (d) **Solar panel requirements for all new nonresidential and high-rise residential buildings.** 2019 California Energy Code Section 110.10(a) (Covered Occupancies) is hereby amended by adding the following table to the end of subsection (a):

Table 110.10-A: Solar panel requirements for all new nonresidential and high-rise residential buildings	
Square footage of building	Size of panel
Less than 10,000 sq. ft.	Minimum of 3-kilowatt PV systems
Greater than or equal to 10,000 sq. ft.	Minimum of 5-kilowatt PV systems
<b>EXCEPTION:</b> As an alternative to a solar PV system, the building type may provide a solar hot water system (solar thermal) with a minimum collector area of 40 square feet, additional to any other solar thermal equipment otherwise required for compliance with Part 6.	

- (e) **Minimum solar area - exceptions.** 2019 California Energy Code Section 110.10(b)1B (Minimum Solar Zone Area – Low-rise and High-rise Multifamily Buildings, Hotel/Motel Occupancies, and Nonresidential Buildings), Exception 2, is hereby amended to read as follows:

**EXCEPTION 2 to Section 110.10(b)1B:** High-rise multifamily buildings, hotel/motel occupancies with a permanently installed domestic solar water-heating system complying with Section 150.1(c)8Biii and an additional collector area of 40 square feet.

- (f) **Minimum solar area – performance equivalency.** 2019 California Energy Code Section 110.10(b)1B (Minimum Solar Zone Area – Low-rise and High-rise Multifamily Buildings, Hotel/Motel Occupancies, and Nonresidential Buildings) is hereby amended by adding the following new Exception 6 after Exception 5:

**EXCEPTION 6 to Section 110.10(b)1B:** Performance equivalency approved by the building official.

- (g) **Minimum solar area – shading.** 2019 California Energy Code Section 110.10(b)3 (Minimum Solar Zone Area – Shading) is hereby amended by adding the following:

**110.10(b)3C.** The solar zone needs to account for shading from obstructions that may impact the area required in 110.10(b)1B. When determined by the Building Official that conditions exist where excessive shading occurs and solar zones cannot be met, a performance equivalency approved by the Building Official may be used as an alternative.

## **EXHIBIT B**

### **CHAPTER 15.38—GREEN BUILDING CODE**

- 15.38.010. Title.**
- 15.38.020. Adoption by Reference.**
- 15.38.030. Definitions.**
- 15.38.040. Residential mandatory measures—Electric vehicle (EV) charging.**
- 15.38.050. Non-residential mandatory measures—Electric vehicle (EV) charging.**

#### **15.38.010. Title.**

This chapter shall be known and may be cited and referred to as the “Green Building Code” for the City of Santa Clara.

#### **15.38.020. Adoption by reference.**

The “2019 California Green Building Standards Code” adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 11 is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the Green Building Code of the City of Santa Clara.

#### **15.38.030. Definitions.**

2019 California Green Building Standards Code Section 202 (Definitions) is hereby amended by adding the following definitions:

**EV Capable:** A parking space linked to a listed electrical panel with sufficient capacity to provide at least 110/120 volts and 20 amperes to the parking space. Raceways linking the electrical panel and parking space only need to be installed in spaces that will be inaccessible in the future, either trenched underground or where penetrations to walls, floors, or other partitions would otherwise be required for future installation of branch circuits. Raceways must be at least 1” in diameter and may be sized for multiple circuits as allowed by the California Electrical Code. The panel circuit directory shall identify the overcurrent protective device space(s) reserved for EV charging as “EV CAPABLE.” Construction documents shall indicate future completion of raceway from the panel to the parking space, via the installed inaccessible raceways. The parking space shall contain signage with at least a ½” font adjacent to the parking space indicating the space is designated as EV Capable for future connection of infrastructure at the designed voltage and amperage levels.

**Level 1 EV Ready Space:** A parking space served by a complete electric circuit with a minimum of 110/120 volt, 20-ampere capacity including electrical panel capacity, overprotection device, a minimum 1” diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled “Electric Vehicle Outlet” with at least a ½” font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE).

**Low Power Level 2 EV Ready Space:** A parking space served by a complete



electric circuit with 208/240 volt, 20 ampere minimum branch circuit capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE) with a minimum output of 15 amperes.

**Level 2 EV Ready Space:** A parking space served by a complete electric circuit with 208/240 volt, 40-ampere capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE) with a minimum output of 30 amperes.

**Level 3/Direct Current Fast Charger (DCFC):** A parking space that includes the installation of a charger with the capacity to provide at least 80 kW of output.

**Electric Vehicle Charging Station (EVCS):** A parking space that includes installation of electric vehicle supply equipment (EVSE) with a minimum capacity of 30 amperes connected to a circuit serving a Level 2 EV Ready Space. EVCS installation may be used to satisfy a Level 2 EV Ready Space requirement. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

**Automatic Load Management Systems (ALMS):** A control system which allows multiple EV chargers or EV-Ready electric vehicle outlets to share a circuit or panel and automatically reduce power at each charger, providing the opportunity to reduce electrical infrastructure costs and/or provide demand response capability. ALMS systems must be designed to deliver at least 1.4kW to each EV Capable, EV Ready or EVCS space served by the ALMS. ALMS systems must be designed to meet the requirements of California Electrical Code Article 625. The connected amperage on-site shall not be lower than the required connected amperage per Part 11, 2019 California Green Building Standards Code for the relevant building types.

**Affordable Housing:** Residential buildings that entirely consist of units below market rate and whose rents or sales prices are governed by local agencies to be affordable based on area median income.

**15.38.040. Residential mandatory measures—Electric vehicle (EV) charging.**

- (a) 2019 California Green Building Standards Code Section 4.106.4 (Electric vehicle (EV) charging for new construction) is hereby amended to read as follows:

**4.106.4. Electric vehicle (EV) charging for new construction.** New construction shall comply with Sections 4.106.4.1, 4.106.4.2, or 4.106.4.3 to

facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

**Exceptions:**

As per the CalGreen code, the Chief Building Official will make determination of exceptions.

1. Where there is no commercial power supply.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities, and without electrical panel upgrade or new panel installation. ADUs and JADUs without additional parking but with electrical panel upgrades or new panels must have reserved breakers and electrical capacity according to the requirements of 4.106.4.1.
3. Multifamily residential building projects with valid entitlements granted by the City that have not otherwise expired before the effective date of this ordinance shall provide at least ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, with Level 2 EV Ready Circuits. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.
4. Spaces Accessible only by automated mechanical car parking systems are excepted from providing EV charging infrastructure.

- (b) 2019 California Green Building Standards Code Section 4.106.4.1 (New one- and two-family dwellings and townhouses with attached private garages) is hereby amended to read as follows:

**4.106.4.1. New one- and two-family dwellings and townhouses.**

1. In private garages with two or more parking spaces, install one Level 2 EV Ready Space and one Level 1 EV Ready Space.
2. For each dwelling unit with only one parking space, install a Level 2 EV Ready Space
3. For parking spaces not assigned to a dwelling unit:
  - a. 25% of the unassigned parking space(s) shall be Level 2 EV Ready Space(s)
  - b. 75% of the unassigned space(s) shall be Low Power Level 2 EV Ready Space(s)

Calculations for the required minimum number of EV Ready spaces shall be rounded up to the nearest whole number.

- (c) 2019 California Green Building Code Section 4.106.4.1.1 (Identification) is hereby amended to read as follows:

**4.106.4.1.1. Identification.** The raceway termination location shall be permanently and visibly marked as "Level 2 EV-Ready".

- (d) 2019 California Green Building Code Section 4.106.4.2 (New multifamily dwellings) is hereby amended to read as follows:

**4.106.4.2. New multifamily dwellings.** The following requirements apply to all new multifamily dwellings:

1. For multifamily buildings with less than or equal to 20 dwelling units, one parking space per dwelling unit with parking shall be provided with a Level 2 EV Ready Space.
2. When more than 20 multifamily dwelling units are constructed on a building site:
  - a. Provide one Level 2 EV Ready Space for each of the first 20 dwelling units with parking space(s)
  - b. For all additional dwelling units above 20 with parking space(s):
    - i. 25% of dwelling units with parking space(s) shall be provided with at least one Level 2 EV Ready Space
    - ii. 75% of dwelling units with parking spaces shall be provided with at least one Low Power Level 2 EV Ready Space
3. Additionally, all multifamily residential developments shall include secured bicycle parking with 110v electrical outlets.

Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number.

**Exception:** For all Multifamily Affordable housing, 10% of dwelling units with parking space(s) shall be provided with at least one Level 2 EV Ready Space. Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number. The remaining dwelling units with parking space(s) shall each be provided with at least one Level 1 EV Ready Space.

**Notes:**

1. ALMS may be installed to decrease electrical service and transformer costs associated with EV Charging Equipment subject to review of the authority having jurisdiction.

2. Installation of Level 2 EV Ready Spaces above the minimum number required level may offset the minimum number Level 1 EV Ready Spaces required on a 1:1 basis.
3. The requirements apply to multifamily buildings with parking spaces including: a) assigned or leased to individual dwelling units, and b) unassigned residential parking.
4. In order to adhere to accessibility requirements in accordance with California Building Code Chapters 11A and/or 11B, it is recommended that all accessible parking spaces for covered newly constructed multifamily dwellings are provided with Level 1 or Level 2 EV Ready Spaces.

- (e) 2019 California Green Building Code Section 4.106.4.2.2 (Electric vehicle charging space (EV space) dimensions) is hereby amended to add an Exception to the end of the Section:

**Exception:** Where the City's Municipal Code permits parking space dimensions that are less than the minimum requirements stated in this section 4.106.4.2.2, and the compliance with which would be infeasible due to particular circumstances of a project, an exception may be granted while remaining in compliance with 2019 California Building Code Section Table 11B-228.3.2.1 and 11B-812, as applicable.

- (f) 2019 California Green Building Code Section 4.106.4.2.3 (Single EV space required) is hereby replaced to read as follows:

**4.106.4.2.3 Automated Load Management Systems.** As defined in Section 2, ALMS shall be allowed to meet the requirements of 4.106.4.2.

- (g) 2019 California Green Building Code Section 4.106.4.3 (New Hotels and Motels) is hereby amended to read as follows:

**4.106.4.3 New Hotels and Motels:** In residential new construction buildings designated primarily for hotel and motel use with parking spaces:

1. 10% of parking spaces shall be Level 2 EVCS.
2. An additional 50% of parking spaces shall be EV Capable spaces.

Calculations for the required minimum number of spaces equipped with Level 2 Ready Space and EV Capable spaces shall all be rounded up to the nearest whole number.

Construction plans and specifications shall demonstrate that all raceways shall be a minimum of 1" and sufficient for installation of Level 2 Ready

Space and all required EV Capable spaces; Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers, and have sufficient capacity to simultaneously charge EVs at all required EV spaces including EV Capable spaces; and service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

**Notes:**

1. ALMS may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS.
- (h) The following sections of the 2019 California Green Building Code Section are deleted in their entirety: 4.106.4.3.1 (Number of required EV spaces), 4.106.4.3.3 (Single EV space required), 4.106.4.3.4 (Multiple EV spaces required), and 4.106.4.3.5 (Identification).

**15.38.050. Nonresidential mandatory measures—Electric vehicle (EV) charging.**

- (a) 2019 California Green Building Code Section 5.106.5.3 (Electric vehicle (EV) charging) is hereby amended to read as follows:

**5.106.5.3. Electric vehicle (EV) charging.** New construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation and use of EVSE.

**Exceptions:**

1. Where there is no commercial power supply.
  2. Spaces accessible only by automated mechanical car parking systems are excepted from providing EV charging infrastructure.
  3. Installation of each Level 3/Direct Current Fast Charger with the capacity to provide at least 80 kW output may substitute for 11 Level 2 EVCS spaces after a minimum of 11 Level 2 EVCS spaces are installed.
- (b) 2019 California Green Building Code Section 5.106.5.3.1 (Single charging space requirements) is hereby amended to read as follows:
- 5.106.5.3.1. Office buildings:** In nonresidential new construction buildings designated primarily for office use with parking:

1. 35% of parking spaces shall be provided with at least one Level 2 EVCS.
2. An additional 35% of parking spaces shall be EV Capable.

Calculations for the required minimum number of spaces equipped with Level 2 EVCS and EV Capable spaces shall all be rounded up to the nearest whole number.

Construction plans and specifications shall demonstrate that all raceways shall be a minimum of 1" and sufficient for installation at all required EVCS; Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers, and have sufficient capacity to simultaneously charge EVs at all required EVCE including EV Capable spaces; and service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

**Notes:**

1. ALMS may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS.

- (c) 2019 California Green Building Code Section 5.106.5.3.2 (Multiple charging space requirements) is hereby amended to read as follows:

**5.106.5.3.2. Other nonresidential buildings.** In nonresidential new construction buildings that are not designated primarily for office use, such as retail or institutional uses:

1. 35% of parking spaces shall be provided with at least one Level 2 EVCS.
2. An additional 35% of parking spaces shall be EV Capable.

Calculations for the required minimum number of spaces equipped with Level 2 EVCS shall be rounded up to the nearest whole number

**Notes:**

1. ALMS may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS.

(d) 2019 California Green Building Code Section 5.106.5.3.3 (EV charging space calculation) is hereby amended to read as follows:

**5.106.5.3.3. Clean Air Vehicle Parking Designation.** EVCS qualify as designated parking as described in Section 5.106.5.2 (Designated parking for clean air vehicles).

**Notes:**

1. The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives number 13-01. [www.dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/f0018447-13-01-a11y.pdf](http://www.dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/f0018447-13-01-a11y.pdf)
2. See Vehicle Code Section 22511 for EV charging spaces signage in off-street parking facilities and for use of EV charging spaces.
3. The Governor's Office of Planning and Research published a Zero-Emission Vehicle Community Readiness Guidebook which provides helpful information for local governments, residents and businesses. [www.opr.ca.gov/docs/ZEV\\_Guidebook.pdf](http://www.opr.ca.gov/docs/ZEV_Guidebook.pdf).
4. Section 11B-812 of the California Building Code requires that a facility providing EVCS for public and common use also provide one or more accessible EVCS as specified in Table 11B-228.3.2.1.
5. It is encouraged that shared parking, EV Ready are designated as "EV preferred."

(e) 2019 California Green Building Code Section 5.106.5.3.4 (Identification) is hereby amended to read as follows:

**5.106.5.3.4. Identification.** The raceway termination location shall be permanently and visibly marked as "EV Ready".

(f) 2019 California Green Building Code Section 5.106.5.3.5 (Future charging stations) is hereby deleted in its entirety and replaced with the following:

**5.106.5.3.5 Automated Load Management Systems.** As defined in Section 2, ALMS shall be allowed to meet the requirements of 5.106.5.3.1