



**City of  
Santa Clara**  
The Center of What's Possible

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## 2023 CITY OF SANTA CLARA REACH CODES

### ***What are Reach Codes?***

**REACH CODES** are ordinances adopted by the local government that exceed and enhance the current version of The State of California Energy and Green Building Standards codes. By adopting the City Reach Code ordinance, the City utilized this opportunity to not only meet our local climate action goal of reducing greenhouse gas emissions, but also achieve greater energy savings and accelerate decarbonization through the all-electric provisions.

City Code Chapters 15.36 (Energy Code) and 15.38 (Green Building Code)

For information not addressed in this handout, please refer to City Reach Code Ordinance No. 2056 which can be found on the Building Division website:

<https://www.santaclaraca.gov/home/showpublisheddocument/76864/638131112280130000>

For projects subject to the 2022 Reach Codes (based on 2019 California Building Standards), refer to 2022 Reach Codes Handout.

### ***Which projects are required to comply with Reach Codes?***

Reach Codes apply to newly constructed buildings, and any additions/alterations that meet the definition of "New Construction", as defined.

### ***When do Reach Codes become effective?***

The City Reach Code is effective January 1st, 2023.

#### **Exceptions:**

- Projects that have received planning permits prior to January 1, 2022.
- Single-family projects that have applied for building permits or have received planning permits prior to April 1, 2022.

**Energy Efficiency** (City Code sec. 15.36)

***All newly constructed buildings shall be All-Electric Buildings, as defined below.***

**ALL ELECTRIC BUILDING:** 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 (including barbecues), and clothes drying appliances (within the building or building property lines), 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 (2022 California Energy Code) 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.

Refer to “**New Construction Determination for All-Electric Provisions of the Reach Codes**” worksheet to determine if the additions and/or improvement projects are subject to Reach Codes requirements.

[Handout: New Construction Determination for All Electric](#)

***Mandatory Solar Regulation*** (City Code sec. 15.36.090)

The 2022 CA Energy Code requires solar installation on newly constructed low-rise residential buildings. Additionally, the City’s Reach Codes mandate minimum size solar photovoltaic installations on all new nonresidential and high-rise residential constructions.

<b>Table 110.10-A: Solar panel requirements for all new nonresidential and high-rise residential buildings</b>	
<b>Square footage of buildings</b>	<b>Size of PV System</b>
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 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.	

**Electrical Vehicle Charging Stations**(City Code sec. 15.38)

***Electrical Vehicle Charging***

The Reach Code requires a higher number of electric vehicle charging spaces (EVCS) than what is specified in the 2022 Green Building Standards for new construction projects.

**Definitions for EV Charging Levels**

Level 1 EV Ready (LVL1 Ready)	Includes 110/120V 20-amp circuit with an outlet
Level 2 EV Capable (LVL2 Capable)	Includes electrical panel capacity for 208/240V 40-amp circuit and conduit (outlet not required)
Level 2 EV Ready – Low Power (LP LVL2 Ready)	Includes 208/240V 20-amp circuit with an outlet
Level 2 EV Ready (LVL2 Ready)	Includes 208/240V 40-amp circuit with an outlet
Level 2 EV Charging Station (LVL2 EVCS)	Includes electric vehicle supply equipment (EVSE) connecting to a circuit serving a Level 2 EV Ready space (208/240V 40-amp circuit)

**EV Charging Requirements**

Code Elements	Proposed EV Charging for New Construction
Single and Two-family & Townhouses	<ul style="list-style-type: none"> <li>• One LVL2 EV Ready per dwelling + LVL1 EV Ready if two spaces                             <ul style="list-style-type: none"> <li>• 25% of all unassigned spaces – LVL2 Ready</li> <li>• 75% of unassigned spaces – LP LVL2 Ready</li> </ul> </li> </ul>
Multifamily & Affordable Housing	<ul style="list-style-type: none"> <li>• Less than 20 dwelling units with parking – one LVL2 Ready per dwelling</li> <li>• 20 or more dwelling units with assigned parking:                             <ul style="list-style-type: none"> <li>➢ First 20 dwellings – one LVL2 Ready per dwelling</li> <li>➢ 25% of remaining units with assigned spaces – LVL2 Ready</li> <li>➢ 75% of remaining units with assigned spaces – LP LVL2 Ready</li> </ul> </li> <li>• Affordable units with parking – 10% LVL2 Ready, 90% LVL1 Ready</li> </ul>
Hotels & Motels	<ul style="list-style-type: none"> <li>• 10%* LVL2 EVCS</li> <li>• An additional 50%* LVL2 EV Capable</li> </ul> <p>*: % of parking spaces</p>
Offices & Other Non-Residential Buildings	<ul style="list-style-type: none"> <li>• 35% LVL2 EVCS</li> <li>• 35% LVL2 Capable</li> </ul> <p>*: % of parking spaces</p>

Table footnote: Calculations for required min. number of EV spaces shall be rounded to nearest whole number.

## **Reach Codes Frequently Asked Questions**

### **Q: Do all-electric buildings cost more?**

**A:** In most cases, all-electric buildings are less costly to build. The service and piping for natural gas is an expense that is often ignored when comparing the cost of gas and electric equipment. An all-electric building starts without that expense, so even when electric equipment might be more expensive in some cases than its natural gas counterparts, that cost is offset by the gas infrastructure savings.

### **Q: Do the Reach Codes apply to remodels or renovations?**

**A:** The Reach Codes apply to all newly constructed buildings as well as 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. Refer to “New Construction Determination for All-Electric Provisions of the Reach Codes” worksheet on the BLDG Department website to determine if the additions and/or improvement projects are subject to Reach Codes requirements.

### **Q: When an addition and/or alteration project triggers Reach Codes - all electric provision, what shall be done to existing utilities?**

**A:** For such projects, the gas meter must be removed and the existing gas line shall be capped. Any existing gas appliances & systems (space heating, water heating, cooking stove, dryer, etc.) must be converted to electric appliances & systems.

### **Q: Will a garage conversion to an Accessory Dwelling Unit (ADU) trigger an all-electric requirement?**

**A:** No. Reach Codes apply to new buildings. Garage conversions are considered an alteration of a building and would not be required to comply.

### **Q: Will a detached garage conversion to an ADU trigger an all-electric requirements and solar panels?**

**A:** No. The State California Energy Commission considers a detached garage conversion as an alteration, not a new residential building.

### **Q: Are solar panels required on an ADU addition to an existing house?**

**A:** No. Solar panels are not required on additions to existing buildings. Solar panels are required to be installed on new detached buildings.

### **Q: Do new detached ADU requires solar panels? Where can new panels be placed?**

**A:** Solar panels are required for newly constructed detached ADU's. The new solar panels shall be placed within the same lot.

### **Q: Do the Reach Codes apply to repairs of existing appliances or general maintenance?**

**A:** No. Repairs or maintenance to existing appliances are exempt.

### **Q: What if a replacement of a natural gas appliance, such as a water heater, furnace, or stove is required? Does this mean the replacement must be an electric version?**

**A:** No. The replacement of an existing gas appliance with a new gas appliance is permitted for existing buildings.