



## City of Millbrae Building Sustainability Reach Codes Summary Tables

Table 1: Energy Code Amendments – Building Electrification & Solar Photovoltaic (PV) Systems

Building Type	Proposed Energy Code Amendments for New Construction	Exceptions*
<b>Single Family and Accessory Dwelling Units</b>	<ul style="list-style-type: none"><li>• All electric building required for space heating, water heating, and clothes dryers.</li></ul>	<ul style="list-style-type: none"><li>• Natural gas can still be used for stoves, fireplaces or other appliances if desired.</li><li>• Prewiring for electric appliances is required where natural gas appliances are used.</li></ul>
<b>Low-density Residential (three stories or less multifamily)</b>	<ul style="list-style-type: none"><li>• All electric building required for space heating, water heating, and clothes dryers.</li></ul>	<ul style="list-style-type: none"><li>• Natural gas can still be used for stoves, fireplaces or other appliances if desired.</li><li>• Projects that have received entitlements within 1 year prior to the ordinance effective date can install gas water heating.</li><li>• Prewiring for electric appliances is required where natural gas appliances are used.</li></ul>
<b>High-density Residential (high-rise multifamily buildings – four stories and greater)</b>	<ul style="list-style-type: none"><li>• All electric building required that uses electricity as the source of energy for all appliances, including but not limited to heating appliances, cooking appliances, fireplaces and clothes dryers.</li></ul> <p><u>Solar:</u></p> <ul style="list-style-type: none"><li>• Install on-site solar equivalent in size to 50 percent of the roof area on the roof or overhang, or another structure located within 250 feet, or on covered parking within the project.</li></ul>	<ul style="list-style-type: none"><li>• Projects that have received entitlements within 1 year prior to the ordinance effective date can install gas water heating.</li></ul> <p><u>Solar:</u></p> <ul style="list-style-type: none"><li>• A modification may be granted if demonstrated that the required percentage of PV installation will over-generate the annual kWh required to operate the proposed building.</li><li>• The PV system size may be reduced in size to the maximum that can be accommodated by the effective annual solar access due to shading from existing permanent natural or manmade barriers external to the building, including trees, hills, and adjacent structures. The effective annual solar access must be 70 percent or greater of the output of an unshaded PV array on an annual basis. No PV system is required if the effective annual solar access is restricted to less than 200 contiguous square feet. If the applicant demonstrates that conditions exist where excessive shading occurs, a performance equivalency approved by the Building Official may be used as an alternative.</li><li>• If there is a vegetative roof which meets all relevant code requirements including considerations for wind, fire, and structural loads, the solar photovoltaic system may be reduced in size that 50% of the roof is covered in either photovoltaics or vegetative roof.</li></ul>

Table 1 continued on page 2



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**Table 1: Energy Code Amendments – Building Electrification & Solar Photovoltaic (PV) Systems**

Building Type	Proposed Energy Code Amendments for New Construction	Exceptions*
<b>Non-residential Buildings</b>	<ul style="list-style-type: none"><li>• All electric building required that uses electricity as the source of energy for all appliances, including but not limited to heating appliances, fireplaces and clothes dryers.</li><li>• Install on-site solar equivalent in size to 50% of the roof area on the roof or overhang, or another structure located within 250 feet, or on covered parking within the project.</li></ul>	<ul style="list-style-type: none"><li>• Life science buildings may use natural gas for space heating if desired.</li><li>• Public agency owned and operated emergency operations centers (e.g. fire and police stations) may use natural gas.</li><li>• Non-residential kitchens (e.g. for-profit restaurants and cafeterias) may use natural gas stoves.</li><li>• For all exceptions, natural gas appliance locations must be electrically pre-wired for future electric appliance installation.</li></ul> <p><u>Solar:</u></p> <ul style="list-style-type: none"><li>• A modification may be granted if demonstrated that the required percentage of PV installation will over-generate the annual kWh required to operate the proposed building.</li><li>• The PV system size may be reduced in size to the maximum that can be accommodated by the effective annual solar access due to shading from existing permanent natural or manmade barriers external to the building, including trees, hills, and adjacent structures. The effective annual solar access must be 70 percent or greater of the output of an unshaded PV array on an annual basis. No PV system is required if the effective annual solar access is restricted to less than 200 contiguous square feet. If the applicant demonstrates that conditions exist where excessive shading occurs, a performance equivalency approved by the Building Official may be used as an alternative.</li><li>• For vegetative roofs meeting relevant code requirements for wind, fire, and structural loads, the solar photovoltaic system may be reduced in size that 50% of the roof area is covered in either photovoltaics or vegetative roof.</li></ul>

**\*Additional Exception for All Building Types:**

*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, then the Community Development Director or his/her designee may grant a modification. If the Building Official grants a modification pursuant to this Exception, the applicant must comply with the pre-wiring provision.*



## City of Millbrae Building Sustainability Reach Codes Summary Tables

Table 2: Proposed Green Building Code Amendments – Electric Vehicle Infrastructure

Building Type	Electric Vehicle Charging Amendments for New Construction	Exceptions
<b>Single and Two-Family, Townhouses, and Accessory Dwelling Units (ADUs) (with attached garages)</b>	<ul style="list-style-type: none"><li>Install one Level 2 EV Ready Space and one Level 1 EV Ready Space for each dwelling unit.<ul style="list-style-type: none"><li>For each dwelling unit with only one parking space, install a Level 2 Ready Space.</li></ul></li></ul>	<ul style="list-style-type: none"><li>Where there is no commercial power supply.</li><li>ADUs and Junior ADUs (JADUs) without additional parking facilities, unless the electrical panel is upgraded or a new panel is installed, in which case only the electrical capacity requirements apply.</li><li>Spaces accessible only by automated mechanical car parking systems.</li></ul>
<b>Multifamily Dwellings**</b>	<ul style="list-style-type: none"><li>For buildings with less than or equal to 20 units:<ul style="list-style-type: none"><li>Install one Level 2 EV Ready space for each unit with parking.</li></ul></li><li>For buildings with more than 20 units:<ul style="list-style-type: none"><li>For the first 20 dwelling units, one parking space per dwelling unit with parking install a Level 2 Ready Space.</li><li>For each additional dwelling unit over 20, 25% of the dwelling units with parking space(s) install at least one Level 2 EV Ready Space, and the remaining dwelling units with parking space(s) install at least a Level 1 EV Ready Space.</li></ul></li></ul>	<ul style="list-style-type: none"><li>Above exceptions apply.</li><li>Projects that have been granted entitlements within 1 year prior to the Ordinance effective date must install Level 2 EV Ready spaces in at least 10% of spaces of parking spaces, aligning with state code requirements.</li><li>Multifamily Affordable Housing:<ul style="list-style-type: none"><li>Install at least one Level 2 EV Ready Space in 10% of units with space(s).</li><li>Install at least one Level 1 EV Ready Space in the remaining units with parking.</li></ul></li></ul>
<b>Non-residential Buildings (excluding Office Use)</b>	<ul style="list-style-type: none"><li>For 10 or more parking spaces:<ul style="list-style-type: none"><li>Install Level 2 Charging Stations in 6% of spaces.</li><li>Install at least Level 1 EV Ready Spaces in an additional 5% of spaces.</li></ul></li></ul>	<ul style="list-style-type: none"><li>Where there is no commercial power supply.</li><li>Spaces accessible only by automated mechanical car parking systems.</li><li>Installation of each Direct Current Fast Charger with the capacity to provide at least 80 kW output may substitute for 6 Level 2 EVCS and 5 EV Ready spaces after a minimum of 6 Level 2 EVCS and 5 Level 1 EV Ready spaces are installed.</li></ul>
<b>Non-residential Buildings with Office Use</b>	<ul style="list-style-type: none"><li>For 10 or more parking spaces:<ul style="list-style-type: none"><li>Install Level 2 EV Charging Stations in 10% of spaces.</li><li>Install at least Level 1 EV Ready Spaces in an additional 10% of spaces.</li></ul></li></ul>	<ul style="list-style-type: none"><li>Where there is no commercial power supply.</li><li>Spaces accessible only by automated mechanical car parking systems.</li></ul>



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	<ul style="list-style-type: none"><li><input type="radio"/> An additional 30% of spaces to be at least EV Capable.</li></ul>	
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### **\*\*Note for Multifamily Dwellings:**

*The City may consider allowing exceptions, on a case by case basis, if a building permit applicant provides documentation detailing that the increased cost of utility service or on-site transformer capacity would be greater than \$4,500 among parking spaces with Level 2 EV Ready Spaces and Level 1 EV Ready Spaces. If costs are found to exceed this level, the applicant would provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site transformer capacity.*