



**CITY of CALABASAS**  
**CITY COUNCIL AGENDA REPORT**

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**DATE:** APRIL 15, 2024

**TO:** HONORABLE MAYOR AND COUNCILMEMBERS

**FROM:** SCOTT TRUJILLO, ASSISTANT CITY MANAGER  
MICHAEL KLEIN, COMMUNITY DEVELOPMENT DIRECTOR, AICP  
SPARKY COHEN, BUILDING OFFICIAL

**SUBJECT:** CONTINUED DISCUSSION OF FIRE SAFETY AND RESILIENCE CODE STANDARDS

**MEETING DATE:** APRIL 24, 2023

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**SUMMARY RECOMMENDATION:**

Review the report and provide direction to staff regarding Fire Safety and Resilience Code Standards.

**BACKGROUND:**

At the request of City Council, the Planning Commission discussed the issue of fire safety as it related to the Building Codes and land development at a public meeting on June 15, 2023. After discussion of the item, the Planning Commission identified the six areas of concern for the City Council to consider. The City Council discussed this item on September 27, 2023, and staff provided the Council with detailed information regarding the California Building Code requirements for fire safety of buildings, LA County Fire Department requirements for fire safety, and home hardening. After taking public comments and discussing the item, the Council requested that staff return with additional information on the following recommendations by the Planning Commission:

- Consider a requirement that new construction provides back-up power. *The Council requested that staff provide a cost comparison between the current California Building Code requirement for solar panels and the addition of battery back-up;*
- Consider prohibiting combustible plant materials within five feet of structures. *The Council requested additional information of state and county requirements for plant materials within five feet of structures.*

**DISCUSSION/ANALYSIS:**

**Consider a requirement that new construction provides back-up power:** The 2022 edition of the California Building Code (CBC), which went into effect on January 1, 2023, requires all new construction<sup>1</sup> to include solar PV to offset its annual usage. Furthermore, all single-family homes and multi-family residential structures up to 3-stories are required to be ready for battery back-up, while all non-residential structures<sup>2</sup> and multi-family residential structure 4-stories or greater are required to provide battery back-up. The following table outlines the minimum CBC requirements.

Structure Type	Solar PV Required	Battery Ready	Battery Required
Single-Family	Yes	Yes	No
Multi-Family ≤ 3-stories	Yes	Yes	No
Multi-Family ≥ 4-stories	Yes	N/A	Yes
Non-Residential	Yes	N/A	Yes

As requested by Council, the following tables include a comparison of the cost difference between meeting the minimum CBC requirements for solar PV and providing battery back-up for single-family homes in Calabasas. Note that a comparison of multi-family residential 4-stories and greater and non-residential structures is not provided because the CBC already requires battery back-up for new construction. Furthermore, the system requirement and associated cost for multi-family 3-stories and less are project specific and not feasible for staff to determine the cost.

In summary, the cost to provide additional battery back-up to the CBC required solar PV system ranges between an **additional** \$14,400 to \$28,800. The battery would supply between 7-18 hours of power back-up for basic household functions such as 110-volt outlets, lights and a refrigerator. In order to provide full power

<sup>1</sup> Some exceptions apply based on the various factors including site shading, roof availability, and minimum size requirements.

<sup>2</sup> Some exceptions apply based on available space, minimum solar system size and availability of virtual net metering.

back-up for a sustained period of time up to 18 hours, the homeowner would have to install significantly more solar panels to generate enough electric off-set to maintain the batteries at full capacity in the event of a power shut-off. Compared to a CBC required system, this would increase the cost between \$141,100 to \$169,700.

<b>CBC REQUIREMENT</b>				
<b>SFR SIZE</b>	<b>CBC Solar PV Requirement</b>	<b>Battery Back-Up</b>	<b>No. of Back-Up Hours</b>	<b>Total Cost</b>
2,000 SF	2.58 kW PV \$7,500	N/A	N/A	\$7,500
3,800 SF	3.69 kW PV \$10,800	N/A	N/A	\$10,800
<b>50% POWER BACK-UP COMPARISON</b>				
<b>SFR Size</b>	<b>CBC Solar PV Requirement</b>	<b>Battery Back-Up</b>	<b>No. of Back-Up Hours at 50%</b>	<b>Total Cost</b>
2,000 SF	2.58 kW PV \$7,500	(1) 13.5 kWh Battery \$14,400	18 hours	\$21,900
3,800 SF	3.69 kW PV \$10,800	(2) 13.5 kWh Battery \$28,800	7 hours	\$39,600
<b>100% POWER BACK-UP COMPARISON</b>				
<b>SFR Size</b>	<b>100% Solar Off-Set</b>	<b>Battery Back-Up</b>	<b>No. of Back-Up Hours at 100%</b>	<b>Total Cost</b>
2,000 SF	41 kW PV \$119,800	(2) 13.5 kWh Battery \$28,800	18 hours	\$148,600
3,800 SF	47 kW PV \$137,300	(3) 13.5 kWh Battery \$43,200	18 hours	\$180,500

<b>SFR Size</b>	<b>CBC Cost</b>	<b>50% Back-up Cost</b>	<b>100% Back-up Cost</b>	<b>Cost Difference</b>
2,000 SF	\$7,500	\$21,900	\$148,600	<b>\$14,400 (50%)</b> <b>\$141,100 (100%)</b>
3,800 SF	\$10,800	\$39,600	\$180,500	<b>\$28,800 (50%)</b> <b>\$169,700 (100%)</b>

**Consider prohibiting combustible plant materials within five feet of structures:** The State Fire Marshall has designated the entire City of Calabasas as located in a Very High Fire Hazard Severity Zone (VHFHSZ). The VHFHSZ has a distinctly different set of rules that would apply to development and maintenance of property compared to other fire zone classifications. In addition to more robust fire protection features for homes, the County of Los Angeles Fire Department and the

California Department of Forestry and Fire Protection (COLAFD) have robust new defensible space requirements for the exterior areas of residential properties. In 2019, in response to the onslaught of wildfires in California, Assembly Bill 38 was signed into law which states that the seller of a residential property located in specified zones must submit documentation of compliance with locally adopted defensible space requirements prior to the close of escrow. Because all of Calabasas has been designated a VHFHSZ by Cal Fire, all properties sold within the Calabasas city limits are subject to the requirements of AB 38.

More recently, with the passing of Assembly Bill 3074, all properties in the VHFHSZ require an inspection from COLAFD to confirm compliance. AB 3074 also introduced "Zone Zero" as a five-foot ember resistant zone and mandates that the local fire department shall administer and enforce the provisions of AB 3074 in conjunction with an existing Annual Defensible Space Program. Collectively, these requirements have amended the basic state laws established by AB38 in a much more restrictive manner and those amendments are known as the Residential Defensible Space Program. The Residential Defensible Space Program establishes three different fire protection zones; Zone Zero (zero to five feet from the exterior walls), Zone One (five feet to 30 feet away from the structure), and Zone Two (30 feet to 100 feet away from the structure). The following table summarizes the requirements and allowed planting materials in each zone:

<b>Residential Defensible Space Program for the VHFHSZ</b>		
<b>Zone</b>	<b>Distance from Structures (ft)</b>	<b>Guidelines</b>
Zero	0-5	All efforts shall be made to eliminate any combustible materials including plants, organic mulches, patio furniture etc.
One	5-30	<ul style="list-style-type: none"> <li>• Zone A should be planted with the least density (limited use of large woody plants) and plant selections should consist of small herbaceous or succulent plants less than 2'-3' in height or regularly irrigated and mowed lawns.</li> <li>• It is best not to use woody trees, shrubs, subshrubs, perennials or masses of un-mowed grasses over 12" tall within 10 feet of the structure; especially in front of windows, which are weak points in a structure.</li> </ul>

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		<ul style="list-style-type: none"> <li>• Occasional accents of woody plants can be used sparingly to soften hard edges of structures if the selections are widely spaced and zone appropriate.</li> <li>• Consider locating hardscape features such as walkways, patios, driveways, sport courts etc. so they abut the structure itself. Potted plants can be used to soften walls if necessary.</li> </ul>
Two	30-100	<ul style="list-style-type: none"> <li>• Zone B can be planted with a slightly higher density than Zone A. However, care should be taken not to create any horizontal or vertical fuel ladders.</li> <li>• Screen plantings can be used to hide unsightly views. Hedging can be used provided the species of plant is acceptable and maintenance is performed regularly to minimize any accumulated leaf/twig litter.</li> <li>• Zone B is the ideal location to introduce larger shade trees, provided they are zone appropriate and the canopies are not continuous.</li> <li>• Avoid planting woody plant species larger than 2' at maturity directly beneath any tree canopy.</li> </ul>
Three	100-200	<ul style="list-style-type: none"> <li>• May be necessary only if an "extra hazard" has been identified by fuel modification personnel.</li> <li>• If Zone C is to be landscaped, avoid creating a landscape that is as dense and hazardous as the unmaintained vegetation.</li> <li>• A good rule of thumb is to follow the same guidelines as Zones A and B with a slight increase in density.</li> </ul>

As stated above COLAFD is the responsible agency for inspecting and enforcing the Residential Defensible Space Program. On January 10, 2023, the County of Los Angeles Brush Clearance Ordinance Passed. Additionally, the LA County Board of Supervisors approved the Fire Department's annual inspection fee of \$151, which will be assessed annually on individual property tax bills. As stated in the previous staff report, the Residential Defensible Space Program goes hand in hand with home hardening recommendations.

Staff's goal is to make sure the City's website includes a complete list of current resources to assist homeowner's in understanding these regulations as they relate to property maintenance and new construction projects.

In summary, staff recommends that changes to the residential battery back-up or landscape requirements should not be pursued at this time because 1) the additional cost to provide battery back-up is significant; and 2) recently updated state requirements for defensible space is robust and is enforced by the LA County Fire Department.

**FISCAL IMPACT/SOURCE OF FUNDING:**

No fiscal impacts or City costs are associated with discussion of this issue.

**REQUESTED ACTION:**

That the City Council review the two remaining Planning Commission's recommendations and provide direction to staff.

**ATTACHMENTS:**

- Attachment A: CAL Fire Defensible Space Information
- Attachment B: Staff PowerPoint Presentation

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