

California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE streamlines and adopts fire codes relevant to ZEVs, implements training, and educates communities on fire safety.

Equity: Promote ZEV infrastructure safety across California, making sure priority communities are proactively addressed.

CAL FIRE ZEV MARKET DEVELOPMENT OBJECTIVES

Update the Regulations. Adopt changes in California Fire Code and nationally referenced standards to keep up with technology while providing safety to the industry and enforcing agencies.

Indirect Pillar Connection: Vehicles, Infrastructure

Enforcement Regulations on State Property. The State of California promotes the use of green technology and promotes the installation of the infrastructure at state facilities. CAL FIRE has jurisdiction over state facilities and provides review, inspection and approved of these systems.

Indirect Pillar Connection: Vehicles, Infrastructure

Support and Educate Governmental Officials. The Office provides updates on changes in the regulations, assists the fire service and industry with questions, and issues formal code interpretations.

Indirect Pillar Connection: Vehicles, Infrastructure

- 1. Update the Regulations.** Adopt changes in California Fire Code and nationally referenced standards to keep up with technology while providing safety and to the industry and enforcing agencies.

Key Collaborators: California Building Standards Commission, California Energy Commission, International Code Council, National Fire Protection Association, industry, and fire service.

Key Results & Actions:

- a. Adopt and maintain clear and updated regulations that provides safe use of the emerging green technology through the California Building Standards Commission. CAL FIRE's updated Energy Storage System become effective July1, 2021 as part of the 2019 Intervening Code Cycle. These will create clear regulations, equity through the industry, promote products that are safe and streamline the regulatory approval process.
- b. Identify shortcomings in the California regulations and continue to update the regulations as needed. CAL FIRE submits regulation code proposals through the California Building Standards Commission every

18 months. Currently, in the 2021 Triennial Code Cycle CAL FIRE is submitting updates for updated edition of UL 9540 Standard for Energy Storage System and Equipment to address the changes in technology. Ongoing process

- c. Represent the office at the International Code Council hearings and the National Fire Protection Association's (NFPA) code adopt processes as they address energy storage, mobile hydrogen fueling, update NFPA 2, Hydrogen Technology Code, and consider changes with photovoltaic systems. This is an ongoing process with different organizations.

- 2. Enforcement Regulations on State Property.** The State of California promotes the use of green technology and promotes the installation of the infrastructure at state facilities. CAL FIRE has jurisdiction over state facilities and provides review, inspection and approved of these systems.

Key Collaborators: Design professionals and all state agencies.

Key Results & Actions:

- a. Safe installations of the ZEV infrastructure on state facilities. The ongoing process sets an example throughout the state.

- 3. Support and Educate Governmental Officials.** The Office provides updates on changes in the regulations, assists the fire service and industry with questions, and issues formal code interpretations.

Key Collaborators: Cal Chiefs Fire Prevention Officers, Society of Fire Protection Engineers, and City/County fire departments.

Key Results & Actions:

- a. Provide regulatory updates the Cal Chiefs Fire Preventions Officers through their monthly meetings, assist local departments and design professionals as requested and issues code interpretations when needed.
- b. Present the updated UL standard 9540 for Energy Storage Systems at the California Building Standards Commission Hearing which will be in December 2021 or January 2022.
- c. In 2021, we expect to focus on International standards for Energy Storage Systems and will participate in the debates at the International Code Council's code hearing on UL 9540a, Test Method of Evaluating Thermal Runaway Fire Propagation in Battery Storage Systems at the code hearings.
- d. Enforcing agencies with informed staff promotes the streamlined review and inspections of the ZEV infrastructure. CAL FIRE will continue

to respond to requests as they arise. Contact information and information on the code adoption can be found at:
<https://osfm.fire.ca.gov/divisions/code-development-and-analysis/>

2021 Action Plan Report:

- OSFM adopted the new 2021 International Code Council regulations for Energy Storage Systems.
- OSFM staff participated in the UL 9540, Energy Storage Systems and Equipment workgroups for the creation of updates in the safety standards
- OSFM proposed the adoption the new edition safety standards for Energy Storage Systems: UL 9540, Energy Storage Systems and Equipment and UL 9540A, Standard for Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems standards in the California Building Standards Code. The proposals will be voted on by the Building Standards Commissioners in January 2022.
- OSFM staff continue to work with California Fire Chiefs Association – Fire Prevention Officer Section and California Building Officials (CALBO) to provide updates on the Energy Storage Systems and the Photovoltaic regulations to the Fire & Building Officials.
- OSFM continues to work with the state agencies with the expanding the use of solar and electric charges through our plan review and approval process.