DOCKETED	
Docket Number:	24-OPT-03
Project Title:	Soda Mountain Solar
TN #:	266469
Document Title:	Comments from San Bernardino County Fire Protection District
Description:	Received October 3, 2025
Filer:	Marichka Haws
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	10/10/2025 3:15:09 PM
Docketed Date:	10/10/2025

SAN BERNARDINO COUNTY FIRE PROTECTION DISTRICT

598 S. Tippecanoe Ave. ● San Bernardino, CA 92415-0179 ● (909) 386-8400 ● Fax (909) 386-8460

Office of the Fire Marshal
Community Safety Section
sbcfire.org

Daniel R. Munsey
Fire Chief/Fire Warden

Monica S. Ronchetti
Fire Marshal

Dear Mr. Jones,

Thank you for your correspondence regarding the Soda Mountain Solar Project (24-OPT-03) and your request for information on fire protection and emergency medical services. We appreciate the opportunity to provide detailed responses to your questions and to support the California Energy Commission's review process under AB 205.

Question #1: *If the project were to be approved and built, is your current full-time and volunteer firefighter staffing at the stations that would respond to a fire at this facility up to your standards?*

a. Which station(s) would respond?

b. What would be the estimated response times for fire, EMS, and rescue?

Response

At present, San Bernardino County Fire Protection District does not have adequate staffing or resources in the Soda Mountain area to meet the standard of care this project would demand. Station 53 in Baker is the only staffed County Fire station positioned to respond directly. This station alone covers over 4,000 square miles with a single paramedic engine (staffed with four firefighters) and a cross-staffed 3,500-gallon water tender. In addition, one paramedic ambulance is assigned daily; however, ambulance staff are non-safety personnel and not firefighter qualified. It is important to note that Station 53 routinely responds to critical emergencies upwards of 1-2 hours away from the town of Baker. It is not uncommon for crews from station 53 to drive over 300 miles in one day responding to calls from Harvard to the Nevada Stateline on the I-15, Highway 127 west to the Inyo County line, which includes the Dumont Sand Dunes Recreation Area, Interstate 40 from Ludlow to Kelbaker Rd. and 1.5 million acres of the Mojave National Preserve. The likelihood of Station 53's area having simultaneous incidents within its response area will increase response times even more to the Soda Mountain area. It is important to note that most of Station 53's response area is federal land, which generates zero property tax revenue for the county fire district. There are currently no mechanisms in place for the fire district to secure revenue for Fire/EMS services in this area.

Response Times:
- From Station 53 (Baker): approximately 20 minutes under ideal conditions to reach the project site. However, this assumes Station 53 is available and not already committed.
- When Station 53 is unavailable: response could be upwards of two hours as the next closest resources would travel from Helendale Station 4, which is approximately 2 hours away. The next closest county fire ambulance would be coming from Hesperia with an approximate 90 min. response time. The closest chief officer to the project site would most likely be coming from the Victorville area with a 90 min response time.
- Specialized Units: Closest HazMat Unit – Station 22 (Spring Valley Lake); Closest Tech Rescue Team – Hesperia with additional support from Fontana and Lake Arrowhead.

This structure means that a single major fire, rescue, or hazmat incident at the facility would exceed the capabilities of Station 53 within minutes, with no timely backup available. The closed County Fire Station 52 in Harvard, located 30 miles south of the site, would provide critical second-due coverage if reopened. Station 52 has been closed since 2008. Without mitigation funding for additional staffing and infrastructure, response times will remain unacceptably long.

Question #2: *Which of all your stations would respond first to a hazmat spill or a rescue?*

Response

For a hazardous materials incident, the closest dedicated HazMat Unit is located at Station 22 in Spring Valley Lake (Victorville) - more than 90 minutes away. Additional HazMat specialists would respond from the San Bernardino Valley, even further away.

For a technical rescue, the nearest specialized resources would respond from Hesperia, with supplemental support from Fontana and Lake Arrowhead rescue companies. Travel times from these areas range from 90 minutes to over two hours.

Station 53 in Baker would still be the first responder for both hazmat and rescue calls, but it is not equipped or staffed as a HazMat or Technical Rescue unit. Their role would be limited to initial life safety actions, hazard isolation, and establishing command while awaiting specialized resources.

Question #3: *If full staffing was achieved, would your existing physical infrastructure be adequate for your needs?*

Response

Even at full staffing levels, the physical infrastructure in this region is inadequate to support the emergency response needs that the Soda Mountain Solar Project will generate. Station 53 in Baker remains the only operational County Fire station within reach of the site, and it cannot sustain multiple or complex incidents effectively without calling in additional resources from upwards of 2 hours away. The County owns Station 52 in Harvard, which is 30 miles south of the project. Station 52 has been closed since 2008. If reopened and staffed, Station 52 would provide essential second-due coverage. Adding additional personnel to Fire Station 53 in Baker would also help provide essential coverage to the region. The Station currently has the infrastructure to add 2 more personnel and staff one additional resource in Baker. Backup stations in Helendale, Hesperia, and Victorville are 90–120 minutes away, which is insufficient for high-risk solar/BESS operations.

Question #4: *What complement of engines, trucks, water tenders, EMS vehicles, Chief's trucks/cars exist at the responding stations? Your back-up stations? Are your Automatic Aid or Mutual Aid from other departments for response or in-fill adequate*?

Response

Station 53 (Baker):
- One Paramedic Engine staffed daily with 4 firefighters.
- One 3500-gallon Water Tender (cross-staffed by engine personnel).
- One Paramedic Ambulance staffed with one EMT and one Paramedic (non-firefighter-qualified).
- No truck companies, HazMat units, or technical rescue resources are assigned to Station 53.

Back-up Stations:
- Station 4 (Helendale): ~2 hours away, staffed with one engine and one brush patrol
- Victor Valley Stations (Hesperia, Spring Valley Lake, etc.): 90+ minutes away, providing HazMat, Rescue, and Chief Officer coverage.
- Closest Chief Officer: ~90 minutes away from the Victorville area.

Automatic/Mutual Aid:
- Soda Mountain lies outside standard mutual aid response zones.
- Due to distance, timely mutual aid support is highly unlikely and often denied.

Conclusion: The existing complement of resources is insufficient. Automatic and Mutual Aid cannot be relied upon. Mitigation must include funding for staffing and infrastructure, particularly reopening Station 52 in Harvard and adding additional firefighter positions at Station 53 in Baker.

Question #5: *The applicant has proposed to use TESLA Megapack 2XL units (MP2XL) or an equivalent alternative. The MP2XL units do not have an internal fire suppression system, however test results demonstrate that a suppression system is not required to stop the spread of fire from cell to cell, module to module or cabinet to cabinet. The MP2XL units do, however, include an explosion control system.*

The MP2XL includes an explosion control system to mitigate the risk of an uncontrolled deflagration. The system includes pressure-sensitive vents (overpressure vents) and sparkers installed throughout the battery module bay. The sparkers are designed to ignite flammable gases very early in a thermal runaway event before they accumulate within the enclosure and become an explosion hazard. Once opened, the overpressure vents permit gases, products of combustion, and flames to safely exhaust through the roof of the MP2XL during a thermal event. By designing this natural ventilation flow path, flammable gases are not permitted to accumulate within the MP2XL cabinet, reducing the risk of a deflagration or explosion that could compromise the cabinet's integrity, push open the front doors, or expel projectiles from the cabinet. In addition, the ventilation path creates a controlled fire condition, should one occur, out the top of the MP2XL cabinet. By maintaining the MP2XL cabinet's integrity, keeping all the doors shut during a fire event, reducing the risk of projectiles, and creating a controlled path for flames to exit the top of the MP2XL cabinet, the likelihood of a thermal event having an impact on life safety, site personnel or first responders, is reduced.

Additionally, three 10,000-gallon water tanks would be located throughout the site near the operation and maintenance building, BESS, and adjacent to the solar arrays. The water tanks would provide storage of water used for fire suppression. The tank would not require a regular supply of water because the water would be withdrawn only in the event of a fire. The tank would be monitored periodically and refilled as needed to replace evaporative losses. For fire suppression water supply, the project would conform to County requirements, which incorporate National Fire Protection Association (NFPA) Standards 1142 and 13 by reference and provide minimum requirements for fire suppression water supply where no public water supply is available (Standard 1142) and sprinkler systems (Standard 13).

Are you satisfied with the currently proposed firefighting approach recommended by the Project?

Response

The San Bernardino County Fire Protection District Office of the Fire Marshal understands that the applicant proposes the use of Tesla Megapack 2XL units, also referred to as MP2XL, or an equivalent alternative in accordance with the California Fire Code. We are in agreement that Per CFC Section 1207.5.5, these units are not required to have a fire suppression system; however, they are required to have fire detection and alarm monitoring in accordance with CFC Section 1207.5.4

At this time, the Fire Marshal's office has only received preliminary plans that lack to identify the size, occupancy classification, or building classification for the proposed structures on site. Therefore, it is not possible to determine whether the proposed 30,000 gallons of water for fire suppression would meet NFPA 1142 standards.

The preliminary site design also raises several concerns related to emergency access:

- Dead-end roadways are approximately one-half mile in length, far exceeding the County Fire standard of 1,000 feet maximum.
- Internal access roads are designed at only 16 feet in width, whereas a minimum of 20 feet is required per local standards.
- Perimeter access roads must be a minimum of 26 feet in width, which is not currently reflected in the design.
- Compaction of onsite roadways are not addressed on preliminary plans, however they shall all be compacted to 85% to hold the weight of local equipment.
- Box culverts and low-water crossings must be designed to meet County roadway requirements.
- Minimal access to BESS yard, County standards require access on all four sides of Bess yard.

Question #6: *As Energy Commission staff, I am required to propose mitigation if I identify an impact that requires mitigation. Given your experience and position, I am asking for your frank assessment of what impacts to your ability to respond to emergencies might be presented by the construction and operation of this Project. Please offer your assessment on all impacts and potential impacts, including draw-down of equipment and staff.*

Response

The Soda Mountain Solar Project will have significant impacts on San Bernardino County Fire's ability to respond to emergencies in this region. The project site lies in one of the most resource-deficient areas of the County, already challenged by long response times, high call demand, and lack of nearby specialized units such as Hazardous Materials and Technical Rescue

companies.

1. Response Deficiencies: Station 53 is the only staffed station in the region, averaging 20-minute response times when available and responding from their quarters in Baker. HazMat and Rescue teams require 90–120 minutes of travel. A single complex incident could exceed Station 53's capabilities almost immediately.

2. Draw-Down of Regional Resources: Major incidents would pull resources from Victor Valley, Fontana, Lake Arrowhead, and San Bernardino, creating countywide vulnerabilities.

3. Historical Example – July 24, 2024 BESS Fire: A BESS fire near Afton Canyon Rd. caused a two-day I-15 shutdown, drawing resources from across the County. Secondary emergencies arose from gridlock in extreme heat. Economic losses were estimated at $121.6 million over two days. This demonstrates the cascading risks of energy infrastructure failures in this corridor.

4. Life, Property, Environment: Soda Mountain presents direct risks to worker and public safety, high-value facility/property, and sensitive desert ecosystems.

Mitigation Needs:
- Reopen and staff Fire Station 52 in Harvard, 30 miles south of the Soda Mountain Project, Add additional firefighter positions at Station 53 in Baker.
- Fund specialized HazMat and Rescue training for Haz Mat and Tech Rescue personnel. – - Provide project-specific funding for personnel, equipment, and operational costs tied to Soda Mountain's risk profile.

Without these measures, Soda Mountain will severely compromise County Fire's ability to protect life, property, and environment.

Question #7: I am also required to assess the "cumulative impact" of adding this Project to others that have either been approved or are in the planning stage.

a. Do you have any comments on any proposed projects that you are aware of in your jurisdiction, either individually or in combination with, the proposed Soda Mountain Solar Project, to cause a cumulative impact?
b. Specifically, do you have any concerns about battery energy storage facilities, or a facility that would combine battery energy storage and photovoltaic (PV) generation?

c. Does your command region have any experience with responding to emergencies at battery energy storge systems or facilities that combine battery energy storage and PV generation?

Response

Yes. The Soda Mountain Solar Project must be viewed in the context of other large-scale renewable energy facilities such as Ivanpah and Mojave Solar. Cumulatively, these projects increase the demand for fire, EMS, hazmat, and rescue resources in a remote, resource-deficient area.

Cumulative Impacts:
- Multiple projects introduce overlapping fire, electrical, and BESS hazards.
- Each incident adds to Station 53's workload and requires distant backup units.

Battery Energy Storage Concerns:
- BESS systems present risks of thermal runaway, toxic off-gassing, and explosion.
- Local resources are not equipped for BESS-specific hazards.

Experience:
- On July 24, 2024, a BESS fire near Afton Canyon Rd. caused a two-day freeway shutdown, major draw on resources, secondary emergencies, and $121.6 million in economic impact.

Conclusion: The cumulative impact of multiple solar/BESS projects creates substantial emergency response challenges. Mitigation must include reopening Station 52 in Harvard and adding additional staffing to Station 53 in Baker. Additional needs will be to increase training for HazMat and Rescue resources, and secure funding for long-term operational needs tied to these facilities.

We trust that the information provided addresses your questions regarding fire protection, hazmat response, and rescue for the Soda Mountain Solar Project. Should you require further clarification or additional documentation, please do not hesitate to reach out. We appreciate your engagement in this process and look forward to continued collaboration as the project advances through CEC review.

Yours in Service,

MONICA S. RONCHETTI, Fire Marshal
San Bernardino County Fire Protection District

Office of the Fire Marshal
mronchetti@sbcfire.org

MSR:kh