

EBBA BATTERY ENERGY STORAGE SYSTEM (BESS) PROJECT FIRE MITIGATION PLAN

The Ebba Battery Energy Storage System (BESS) facility would be constructed and operated as part of the proposed 300 MW Ebba Solar Project in Lincoln County, Colorado.

The primary fire risks associated with a BESS project using lithium-ion batteries result from the failure of the batteries during operations from manufacturing defects or subtle damage or use scenarios (mechanical, thermal, or electrical) which can result in thermal runaway leading to fire. Fire management requires managing the risk from the batteries and also the control of potential spread should a fire event occur.

This fire management plan identifies those measures that will be taken to minimize fire risk associated with the Ebba BESS facility.

Prior to construction, the fire management plan will be updated and finalized in consultation with the Applicant, BESS supplier / contractor, and the local fire department / district.

Design / Preconstruction

- Coordinate closely with the local fire department / district during the permitting and design of the BESS.
 - The nearest source of water for fire suppression would be identified.
 - An up to 20,000-gallon water storage container would be incorporated into the site design if determined to be necessary for fire suppression by the local fire department / district with jurisdiction over the site.
 - Written confirmation from the local fire department / district would be obtained confirming the Project has been evaluated for fire risks and has sufficiently mitigated any identified risk.
 - A written agreement with the applicable fire department / district would be entered into identifying the fire management and mitigation measures that will be employed for the Project.
- Training specific to BESS fire hazard and risk mitigation will be provided to local fire departments / districts in partnership with the Fire and Risk Alliance.
- Electrical equipment would be housed in appropriately rated National Electric Manufacturers Association (NEMA) enclosures.
- Safety standards to be followed by BESS systems include UL9540A and NFPA 68.
- In the BESS site design, BESS units would be grouped on the site into smaller sub-groups spaced apart from the other subgroups to prevent horizontal propagation in the event of fire.
- BESS units would be chosen from Tier 1 Suppliers only. See attached specifications sheet from an example Tier 1 technology that may be utilized for the Ebba BESS. Once final technology is chosen prior to construction, all applicable safety plans will be updated in coordination with the local fire department / jurisdiction.

Construction

- Vegetation clearance would be conducted on and around BESS site and nearby structures at the site, including a 10-foot wide fire break to be maintained around the exterior of the BESS perimeter fence.
- At the completion of construction, a walk-through of the BESS site with the local fire department / district and other public safety agencies would be scheduled and implemented.
- Emergency personnel will be given the key or code to access the facility.

Operation and Maintenance

- An operational Fire Prevention and Safety Plan for the site would be developed and implemented that incorporates the use of appropriate fire protection equipment specific to the technology (for both non-electrical and electrical fires), worker training, and regular coordination with the local fire department / district.
- A battery management system would be incorporated into the BESS design to monitor, control, and optimize performance of an individual or multiple battery modules and control the disconnection of the modules from the system in the event of abnormal conditions.
- Appropriate signage would be incorporated on each BESS unit displaying necessary contact and safety information in accordance with local code and coordination with County and fire district officials and staff.
- A vegetation / weed management plan for the BESS site would be implemented to minimize fire risk and minimize spread.
- Fires would be immediately reported to 911 or directly to the local fire department / district and immediate safe entry of firefighting apparatus and personnel to the site would be provided.