Myth1: Lithium Battery Energy Storage Systems (BESS) create a “High Risk” of danger and property damage because Lithium “commonly” causes fires, which are impossible to put out and result in the release of toxic gases and PFAS that contaminate groundwater.

Myth2: The bigger the BESS (MWhr) project, the higher the risk because “Thousands of batteries increase the risk for runaway thermal fires.”

Examples of misinformation supporting these Myths spread by opposition groups are invariably not related to post-2022 design/installed BESS containers which are the current state-of-the-art and thus should be exposed as irrelevant misinformation when discussing new Solar+BESS projects. Myth and fear-based concerns can be dispelled once the misinformation is fact-checked and shown to be irrelevant or just plain false. i.e. stop comparing new apples to old imaginary oranges.

True information about modern (post-2022) BESS: You might ask, “Why is 2022 important when evaluating and fact-checking information and evidence?” The answer is because that is the year the UL Certification standards for Testing/Certifying BESS containers were last updated. Any new BESS project is required to use only equipment meeting all current Standards and Codes.

It really doesn't matter how many battery cells or modules are at a site. What matters is how many containers are on a site, and understanding that each container has been Certified as a “system” safe to use in the intended manner. There are layers of well developed standards and regulations governing the design of modern containerized BESS systems than have proven to be incredibly effective in preventing fires from starting, and 100% effective so far in preventing ANY fire from spreading outside any BESS facility.

UL Certified Lithium battery cells, (Li-ion or LFP), are grouped into Modules typically with about 5kWhr of energy capacity, usually in a "server rack" configuration. Each Module typically having an internal Battery Management System (BMS) to manage the charge/discharge at the cell level, plus internal sensors and fire suppression systems inside the Module enclosure itself. Each Module must be certified to appropriate UL standards for Lithium battery Modules. Modules are grouped into stacks of limited size per standards, with air gaps between for temperature management, and all the stacks are enclosed in a UL certified metal enclosure with an EPA approved aerosolized fire suppression system designed to disperse "clean agent" like Novec1230 throughout the interior and prevent thermal runaway. Novec1230 does contain PFAS, but a completely different formula than the old “bad” foams and is EPA approved. The containers themselves are designed to fail in a controlled manner in the unlikely case of module thermal runaway such that the heat from fire goes up, not to the sides, to prevent spread outside the container. Also important to note is that worst-case BESS container fires do NOT send up hot embers like a wildfire, and NFPA-855 required space around BESS containers to be cleared of all combustibles. The current protocols for fire response is NOT to open containers and flood with millions of gallons of water, it is to spray water on the outside of the involved container and surrounding area and monitor temperatures… usually requiring less than 48 hours, and not requiring HAZMAT response teams since the EPA has confirmed (from a “last generation” BESS fire 2024 in Escondido) that there are no toxic gases emitted, just particulates in the smoke similar to any structural fire.

The key facts are that each BESS container is certified safe for intended use "as a system" by the appropriate standards and codes regulating this type of electrical equipment.... UL-9540a is the "umbrella" certification for BESS container systems. They must be designed/installed to current requirements spelled out in National Electrical Code guidelines, version 2020 in NM, and compliant with current Fire prevention and response codes and protocols spelled out for Lithium battery storage systems in NFPA-855.

The **FACTUAL EVIDENCE of LOW RISK and NO DAMAGE FROM MODERN BESS FIRES** is that current standards and codes have proven 100% effective to date in preventing any fires from spreading outside any modern BESS facility designed and installed to current (post-2022) standards. There have been a (few<10) fires annually in the US at BESS facilities over the years at older sites, but none that spread off-site. The number of incidents per MWhr installed continues to drop as standards and certifications have become more and more rigorous over the years... lessons learned from past incidents has resulted in better and better prevention and containment.

- In the US there has been ZERO property damage outside any BESS facility to date,
- ZERO toxic gas emissions at an active fire per EPA air monitoring, and
- ZERO contamination from PFAS from modern BESS using “clean agents” like Novec1230.

These facts should help address fear-based concerns based on misinformation regarding: fires spreading from BESS facilities to nearby property, toxic smoke, PFAS contamination, lower property values, higher fire insurance costs, etc.

There should be no need to re-litigate the effectiveness of existing standards and codes in Public Hearings since there is ZERO relevant evidence of hazards or dangers to the Public outside a modern BESS facility.

Typically, in an average County in NM, there will be one or more fires annually from known Risks like:

- Wildfires from Lightning strikes
- Roadside wildfires from cigarettes
- Roadside Car fires
- House fires
- Fireworks
- Etc.

This means that the Risk of fire occurring in a specific area is something more than 1:365 depending on the size of the area, even if you only count fires that spread from one property to the next causing some property damage, or deaths.

Thus it follows logically that the risk of fire starting and spreading from a BESS site, which is 0:thousands? of operational sites in the US so far, is therefore lower than any other pre-existing source of ignition that people live with every day.