

Fire Hazard Risk Comparison

A quick comparison of fire hazards between Solar Farms, Farming Activities, and Residential Homes.

Risk Factor	Solar Farms	Farming	Homes
Common Fire Causes	Electrical faults, unmanaged vegetation	Machinery fires, crops, open flames	Cooking, electrical faults, heating
Fire Rate	Extremely Low	Moderate to High (seasonal)	Moderate
Fire Spread Risk	Low (non-flammable materials, sparse vegetation)	High (dry crops, wind)	Moderate (depends on structure, spacing)
Impact Zone	Localized equipment	Large acreage possible	Entire structure may burn
Regulatory Controls	Strict electrical & fire codes	Limited; burn permits & machinery rules	Building & fire codes, insurance rules

Key Takeaways

- Solar farms have significantly lower fire risks than farms or homes.
- Farming presents high fire hazards due to crops and machinery.
- Homes face moderate risks, mostly from cooking and electrical faults.
- Solar farms use non-flammable materials and follow strict safety codes.

Solar fires have primarily been associated with low quality external DC isolators (on/off switch) and panel wire connectors not matching wire connectors, similar to home fires with the wrong plug inserted into a socket. Ground mount systems such as this do not utilize DC isolators, alleviating that particular concern. High quality connectors made from the same company are now used throughout the project to prevent fire risk. This issue has been corrected in newer community solar installations as past fires provided an important deterrence and motivation for proper installation.

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