



**RENEWING  
WHAT'S POSSIBLE**

# Risky Business: Planning, Engineering, Insuring, and Maintaining Projects

**Moderator:** Ryan Egly– Senior Project Development Engineer, Schneider Electric

**Panelist:** Adam Polis– Director of Performance Engineering, Sol Systems

**Panelist:** Jaspreet Singh – Director- Products & Solutions, Qcells

**Panelist:** Piper Wilder– Founder/CEO, 60Hertz Energy

**Panelist:** Carol Stark – North American Renewable Energy Practice Leader, Aon

# Natural Disasters- Hail, Hurricane, Fire & others

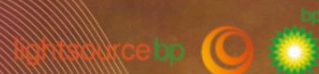


<https://www.renewableenergyworld.com/solar/community-solar/solar-farm-pelted-by-giant-hail-as-severe-storm-ripped-through-nebraska/>  
<https://www.pv-magazine.com/2024/10/17/tornado-rips-through-solar-farm-in-florida/>

# Case Study 1 – Fire Risk

## Case Study: Highway 70 Fire

6/26/25 — 7/26/25



### Fire Impact Report

Site Name:  
Site Location:  
Date Range: 2025-06-27 - 2025-07-26

#### Summary

Fire-derived Generational Loss

195MWh

Hours of Generation Affected

303hrs

Lost Revenue Due to Fire

\$5,853

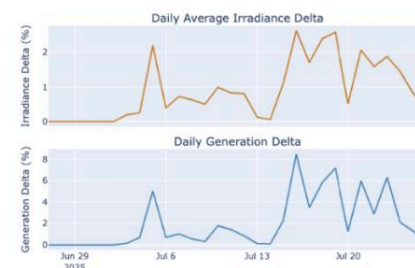
Fire Impact Score



#### Summary

The dataset highlights the impact of the Hwy 70 wildfire on the solar site over a month-long period in 2025. During the initial days, no impact is recorded, but starting from July 3, significant disruptions occur. The site experiences variations in irradiance and a noticeable decrease in power generation which corresponds to financial losses. The frequency of fires remains constant at one fire per day during impacted days, reflecting ongoing challenges in the region. There are distinct peaks in generation loss and revenue loss around mid-July, with the most severe losses on July 16 and 19. The overall pattern shows a significant effect on energy output, particularly during peak impact days. Future concerns include maintaining consistent power generation during wildfire events, indicating the need for mitigation strategies to handle similar situations. The trend indicates recurring disruptions due to wildfires, necessitating resilience planning for future operations.

#### Fire Impact



#### Week by Week Fire Impact Breakdown

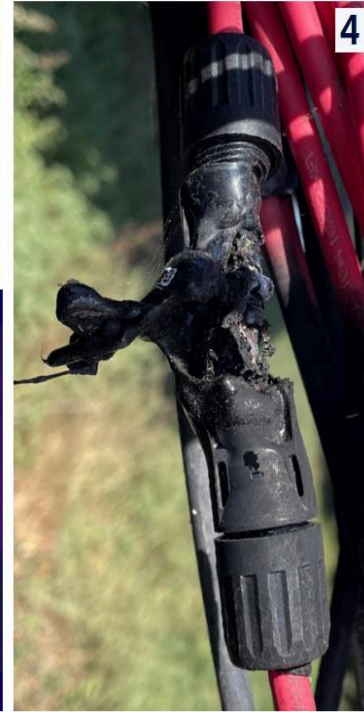
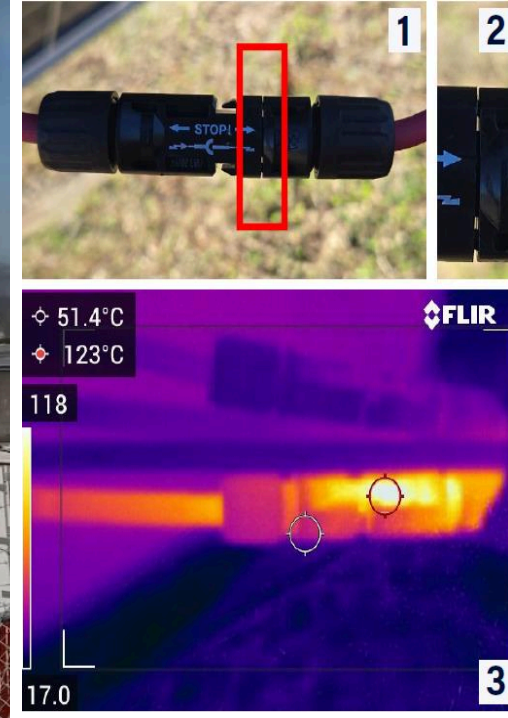
| Week Start | Average Irradiance Loss (%) | Total Generation Loss (%) | Hours Impacted | # of Fires | Revenue Lost |
|------------|-----------------------------|---------------------------|----------------|------------|--------------|
| 2025-06-23 | 0.0                         | 0.0                       | 0              | 0          | \$0          |
| 2025-06-30 | 2.0                         | 7.0                       | 43             | 1          | \$645        |
| 2025-07-07 | 1.0                         | 6.0                       | 98             | 1          | \$598        |
| 2025-07-14 | 3.0                         | 28.0                      | 89             | 1          | \$2,790      |
| 2025-07-21 | 3.0                         | 19.0                      | 73             | 1          | \$1,821      |

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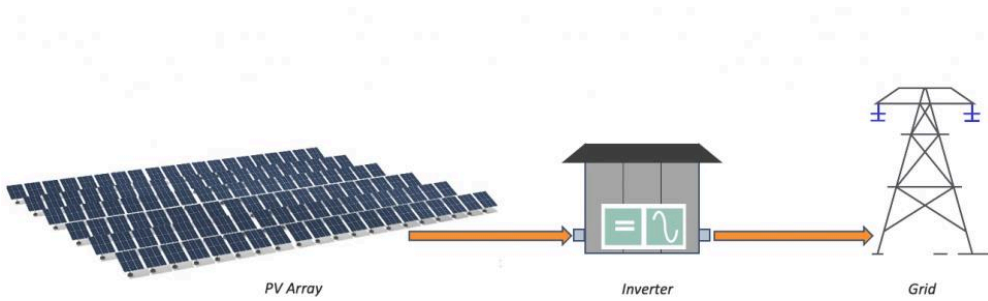


# Technology Risk – Hardware

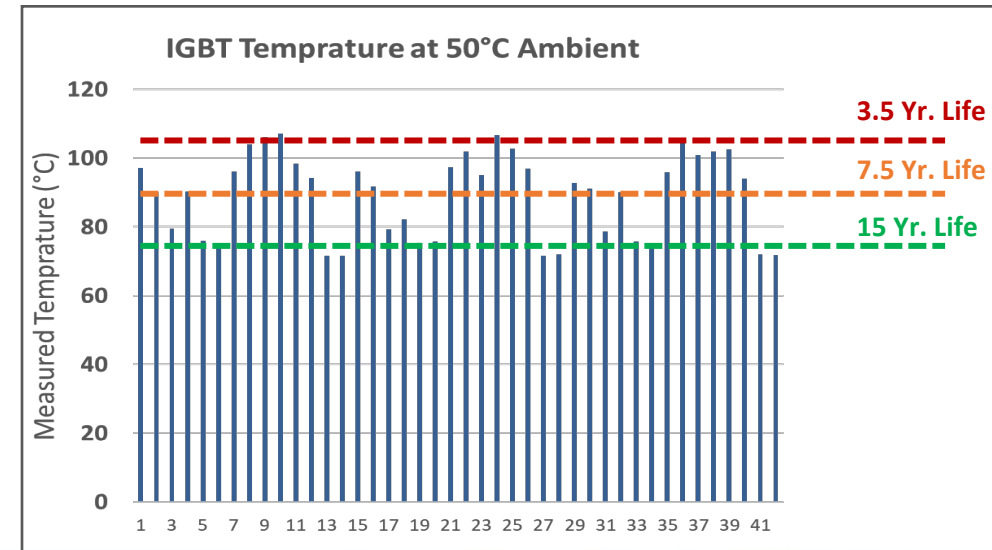
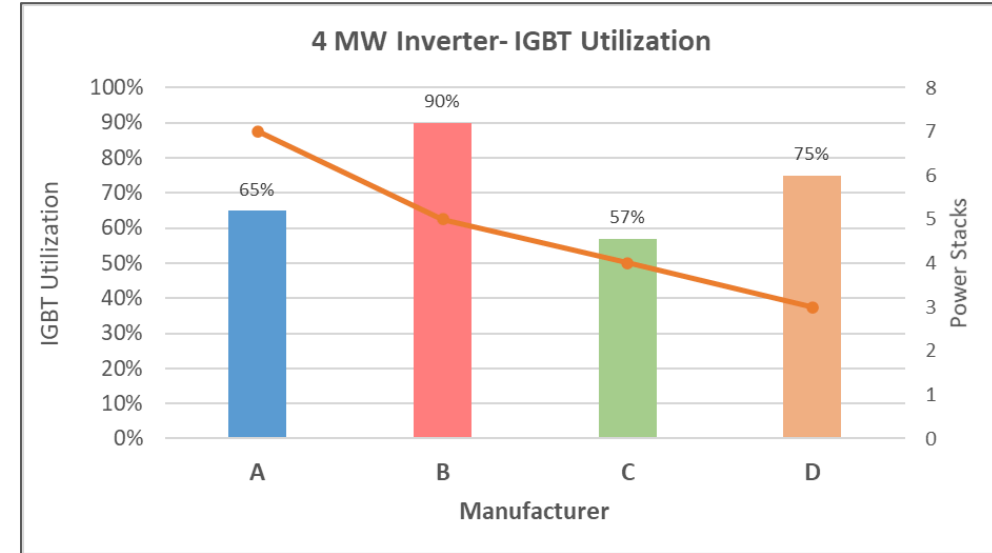
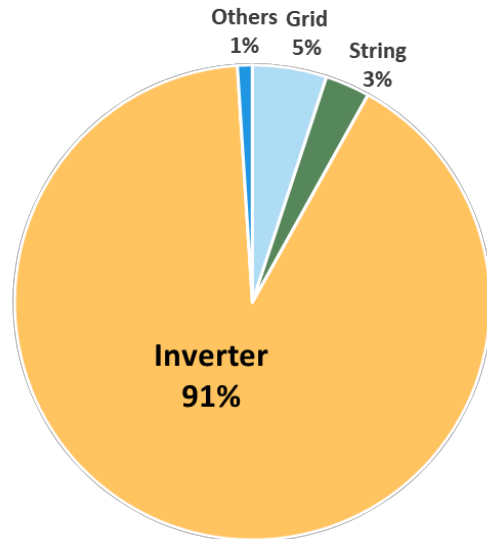


<https://www.firehouse.com/operations-training/news/55138200/fire-at-escondido-ca-battery-storage-facility-could-burn-for-two-days>  
<https://www.heliovolta.com/resources/pv-health-report-2025>

# Case Study 2- Technology Selection

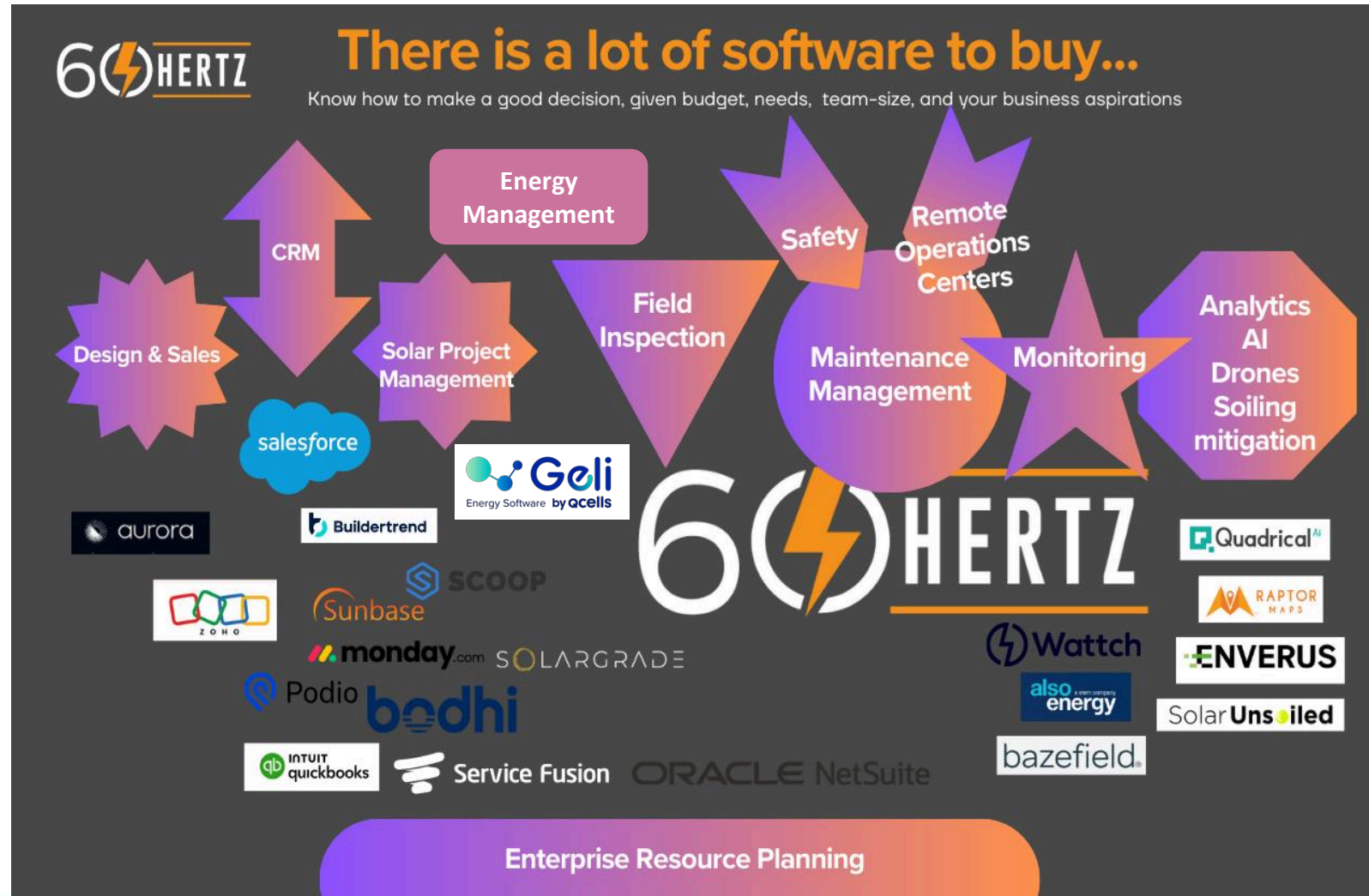


## 578MWdc Projects- Type of Faults



Source: Data collected from 2015-2016 by SNL (Sandia National Labs)- report SAND2018-1743  
<https://solarbuildermag.com/featured/why-solar-inverters-and-projects-fail-and-how-to-minimize-those-risks/>

# Technology Risk – Software





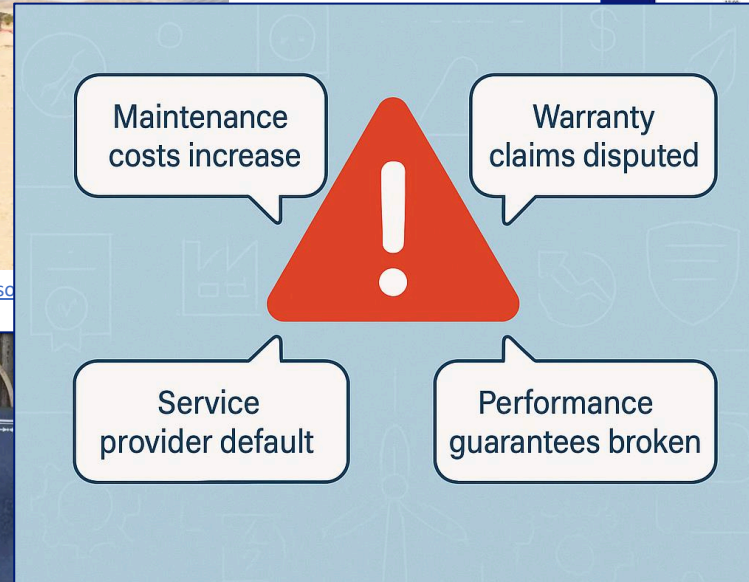
# Asset Management– O&M, Warranties & Service



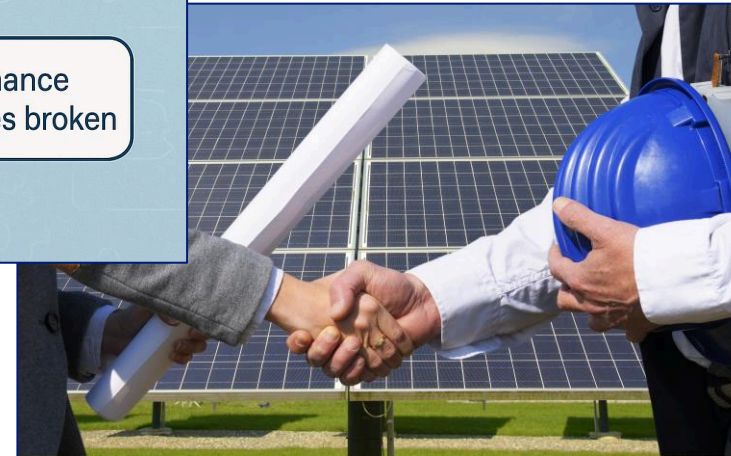
<https://us.qcells.com/blog/southern-powers-south-cheyenne-so>



<https://www.gelienergy.ai/solutions#insight>



<https://www.canarymedia.com/articles/climate-tech-finance/the-cleantech-companies-that-didnt-make-it-through-2024>



<https://solarbuildermag.com/news/solar-om-presents-long-term-profitability-challenges/>

# System Design: Microgrids & Utility Compliance

On-site renewables, energy storage and power generation facilities utilized in parallel with grid



**Grid-tied**

Microgrid will generate energy from local sources in the case of a grid outage OR other external.



**Island-able**

Microgrid will generate energy from local source



**Off-grid**



# Q&A

