

This submission concerns the many safety hazards associated with BESS and in the attached file gives a set of incidents worldwide recorded by EPRI.

EPRI (Electric Power Research Institute) is an independent US, not for profit organization that does research into industry issues. It maintains a database of BESS failures in installations worldwide at [REDACTED]. I have downloaded the failure vents recorded as of 6 December 2022 and attached them to this submission.

The data shows that failures are relatively common even when the design and installation is done by major experienced well-funded companies such as LG and Tesla. These events are far from trivial - for instance, an event in Beijing in April 2021 caused the death of two firefighters in an explosion of the battery. In Arizona in April 2019, seven firefighters were injured and one killed. Such adverse events have happened in the UK, for instance in Liverpool in February 2022 when a 20 MW hour capacity battery (less than 1% of the capacity of the Sunnica proposed BESS) exploded scattering debris over tens of metres.

No doubt the industry is trying to understand the root cause and working hard to come up with safe scalable designs. The risks are also not confined to firefighters and the company's staff since the batteries themselves release toxic materials when they fail putting at risk local communities and nearby schools. The literature indicates the failure mechanisms are not completely understood and include a combination a combination of design, installation and handling issues.

Sunnica and their partner PS Renewables have completed no installations of power generation systems including BESS. Thus their proposed solutions will either be based on no real experience in the field or heavily reliant on advice from sub-contractors. The sub-contractor will probably have specialist knowledge on batteries but are likely to fall short on the overall expertise covering a system which by Sunnica's own admission has a unique design with its distributed rather than integrated configuration.

In conclusion, the toxic mix of Sunnica's lack of prior experience and expertise, reliance on external investors and the scale of the scheme dwarfing all other solar schemes is likely to give rise to a major incident at some point in the life of this system which if we are lucky may only cause major economic losses and if we are unlucky will cause loss of life of firefighters and perhaps even members of the local community.