

Can we be more resilient to multi hazard weather events?

EIP008

28 February 2023

Background

- Weather related hazards are often assessed in isolation with little understanding on the complexities of how different hazards interact with each other and over what period an individual risk may leave us vulnerable to another hazard.
- June 2022 Yellowstone flooding in the US
- The problem of multi-hazard weather events happening within the same location and time must be critically analysed to manage probability of cascading failures which are a growing concern as one the main mechanisms causing widespread blackouts of power networks.
- Currently, no matrix exists to fully incorporate resilience against such multi-hazards which are forecasted to increase with climate change. Current research has been looking at resilience against specific individual weather events.

Enablers and Constraints

- Whole Energy System Resilience Vulnerability Assessment (WELLNESS) if it passes the SIF funding approval will act an enabler
- In some cases the individual risk is somewhat understood. Current design standards typically consider risk in isolation

Involvement and Implementation

- Key Stakeholders – Asset Management Teams and System/Network Operators across the sector
- Target Market – Ensuring the security of supply and keeping the lights on for millions of customers everyday even under extreme weather conditions.
- Implementation – Existing data and tools can be used to produce a model which can be easily integrated into NGET's risk management system within RIIO-T2

Energy Innovation Basecamp

28 February 2023
ICC Birmingham

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Participant joining code
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How to improve power network resilience against climate change induced multi-hazard concurrent weather events e.g. snow, extreme heat, rainfall, and flooding?

