

# How does extreme heat impact network assets?

EIP007

28 February 2023

## Background

- The strain that extreme heat poses on critical infrastructure is unknown let alone the impact of rapid temperature stepped changes
- We know heat and cold waves affect the normal operation of electrical components. With climate change, these phenomena will be on the rise.
- A co-ordinated approach to optimise assets output and equipment operations in substations is necessary to support clean energy delivery even under extreme heat situations. Optimising on extreme heat/temperature or their rapid fluctuations in a power system environment is key.
- Currently, there is no method to clearly indicate how service delivery is affected by rapid heat changes and high temperature occurrences.
- Heat waves may lead to power system malfunctions that can disrupt service delivery or in worst cases extended outages.

## Enablers and Constraints

- Whole Energy System Resilience Vulnerability Assessment (WELLNESS) if it passes the SIF funding approval in March 2023 will be an enabler
- Adoption of resilience strategy is an enabler
- Quantifying the risk introduced by weather is a difficult task due to its high stochasticity and multi-dimensional impact

## Involvement and Implementation

- Key Stakeholders – Asset Management Teams and System/Network Operators across all network operators
- Target Market – Ensuring adequate power supplies under extreme weather conditions to millions of customers.
- Implementation – Aim to test the solution during 2023/24

# Energy Innovation Basecamp

28 February 2023  
ICC Birmingham

#Basecamp28  
Participant joining code  
Slido.com

What is the impact of extreme heat on power network assets?





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