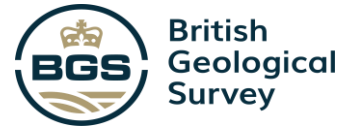


SWIFTER

Space Weather Impact for Future
Electricity System Resilience

Ben Young – Head of Power Systems



What is Space Weather?



Extremely complex and multi-faceted phenomenon.



Influenced by the Sun, our position in the solar system and Earth's magnetic field and atmosphere.



It can cause changes to our atmosphere and environmental conditions.

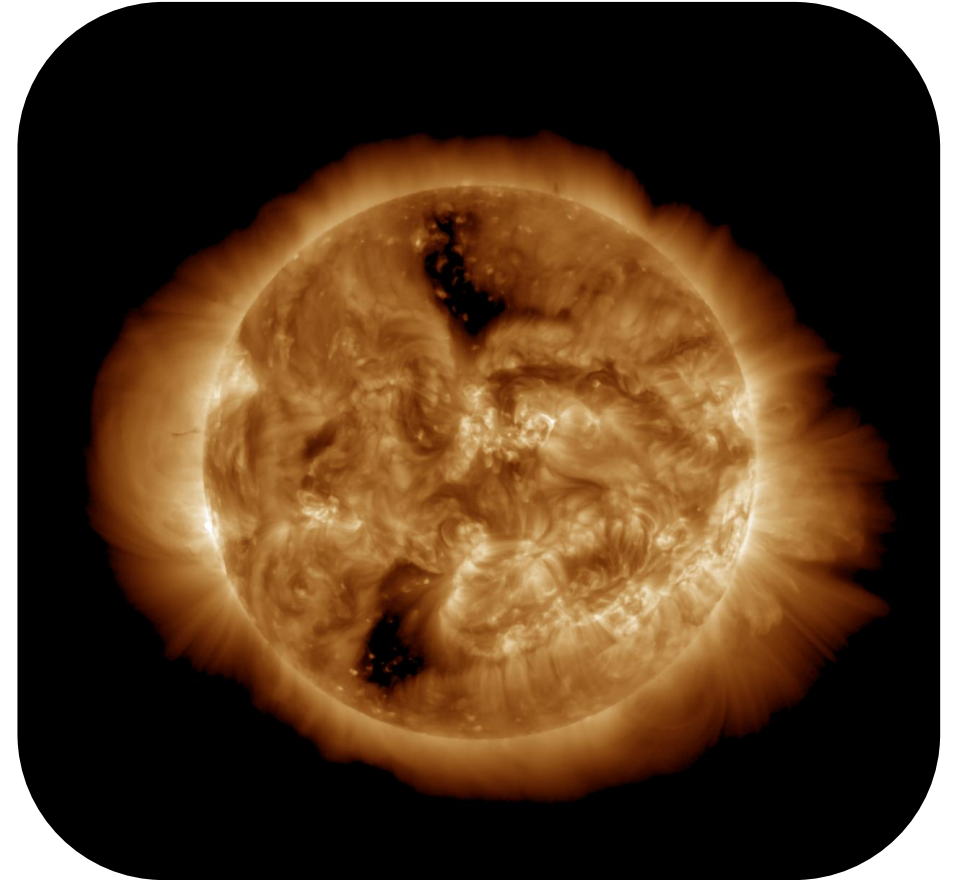


Northern and Southern lights are well-known examples of space weather.



What are the risks?

- Geomagnetic and radiation storms can have negative impacts on infrastructure and technology.
- In extreme cases, Geomagnetic storms can affect equipment and cause outages on the electricity system.
- Alongside partners from across industry and government, NESO has plans in place to respond to a severe space weather event.
- These response plans are regularly tested and have evolved over time. However, the underlying principles are based on scientific and industry research from 2013.



THE SUN (EUV)

The SWIFTER Project

Drawing on the latest research from across the globe, the SWIFTER project aims to model the potential impact of space weather on the new and evolving decarbonised, decentralised electricity system

1

What are the potential impacts of a severe space weather event on the modern system?

2

Which mitigations could be implemented, pre-event, during event, and post event?

3

How can we inform industry contingency and response plans?

Supported by extensive engagement with partners and experts from across industry and academia.

Activities so far

Phase 1: Diagnostic and Engagement

- Extensive literature review.
- Three workshops to update project scope and methodology.
 - ✓ Supporting the delivery of effective outputs.
 - ✓ Improving project benefits.



British Geological Survey



What's next?

Impact Assessment

Detailed modelling and assessment.

Further workshops to confirm assumptions, approach and findings.

Mitigation

Identify cost-effective mitigations.

Further workshops to present findings.

Further activities

Provide support to update industry contingency and response plans.

Find out more:

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