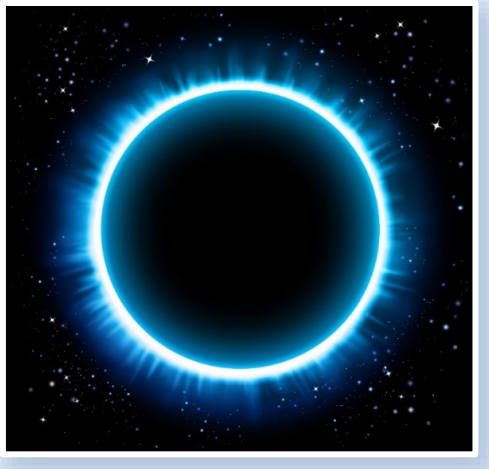
Supplemental Project Notice

SUNBURST NETWORK MEMBERSHIP



EPRI continues research on geomagnetic disturbances and GIC caused by the sun.

PROJECT HIGHLIGHTS

- Collect, study, and share data about geomagnetically induced currents
- Compare data from other member sites
- Help develop and validate various models
- Participate in routine calls and meetings

Key Research Question

Solar disturbances have the potential to affect electric power systems. Full solar cycles run for approximately 11 years each.

For more a decade, EPRI's SUNBURST network program has proven to be an effective, organized approach for measuring, consolidating, and sharing data related to geomagnetically induced currents (GIC).

Objective

This project focuses on the collection, study, and sharing of SUNBURST node (EPRI Project 1-109436) and magnetometer (EPRI Project 1-105802) measurement data and insights. This data is needed and used for continuing research studying the cause, effects, and potential mitigation of GIC on electrical power systems.

The SUNBURST network is a consortium of member utilities with near-real-time continuous monitoring of large power transformers. Data is collected from nodes to assess the impact of solar storms on the grid.

Improved insight, better modeling, and development of effective mitigation methods can increase reliability and resiliency of the grid, potentially reduce costs, and assist in complying with regulations.

Approach

The data collected will be used for feedback into new GIC calculation models, and to validate prediction models, including at the member utility locations as well as work done by NASA, NOAA, and the USGS.

The SUNBURST project also supports an annual event where relevant scientists and utility personnel come together to discuss common issues and concerns related to GIC.

Research Value

EPRI has accumulated an extensive body of data and experience of GIC data. The data collection and research continue as EPRI helps improve understanding of the effects of GIC on the grid for both its members and society.

Deliverables

Continued data collection, with the capability to view data in near real time

- Data study and storm summaries
- Routine calls
- Annual meeting

Price of Project

This is an annual supplemental project. Yearly participation costs $35,000, and is eligible for co-funding or self-directed funding (SDF).

NOTE: Installation of SUNBURST sensor nodes (EPRI Project 1-109436) and magnetometers (EPRI Project 1-105802) to gather data on GIC and magnetic fields respectively, are separate projects and are not included with the annual fee for this supplemental project. Please contact EPRI for additional information.

Project Schedule

A commitment of at least a one year is required to maintain continued access to the web services, receipt of updates, alerts, and invitation to the yearly meeting.

Who Should Join

- Utilities interested in collecting data and better understanding the GIC levels in their territory
- Planners and researchers looking for data to help validate GIC calculation and prediction models
- Utilities subject to EOP-010 and TPL-007

Contact Information

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

Technical Contact

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