

Seminar on  
**Climate Change Resilient Insulators  
and associated Hardware for Long-  
Term Grid Reliability**

Under the aegis of CIGRE NSC B2 on Overhead lines

Date: 27<sup>th</sup> January 2025

Venue: CBIP Conference Hall, New Delhi



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## **ANNOUNCEMENT**

The Central Board of Irrigation & Power jointly with CIGRE-India is organising Seminar on “Climate Change Resilient Insulators and Associated Hardware for Long-Term Grid Reliability” on 27 January 2025 at Conference Hall, CBIP, New Delhi. This seminar is supported by Central Electricity Authority. This Seminar is being organized under the aegis of CIGRE NSC B2 on Overhead lines.

## **INTRODUCTION**

Power transmission serves as the backbone of the energy sector, facilitating the seamless delivery of electricity from generation points to end users. As the demand for electricity continues to rise and the need for a more resilient grid becomes increasingly urgent. It is vital to maintain our systems to ensure uninterrupted service.

In light of the intensifying impacts of climate change, the energy sector faces significant challenges in sustaining the reliability and resilience of electrical grids. Insulators and associated hardware play a critical role in this framework, directly influencing the stability and performance of power systems. Recognizing the importance of this topic, the Central Board of Irrigation and Power (CBIP), in collaboration with CIGRE India, is organizing a seminar on “Climate Change Resilient Insulators for Long-Term Grid Reliability.”

This seminar will delve into the necessity of developing climate change resilient insulators and its hardware highlighting their benefits and the innovations that are driving their advancement. It aims to educate professionals and engineers on the critical role these technologies play in ensuring a sustainable and reliable energy future.

## **THE CHALLENGE**

Climate change poses several risks to electrical infrastructure, including:

- **Extreme Weather Events:** Increased frequency and intensity of storms, flooding, and temperature fluctuations can lead to damage and failure of traditional insulators.
- **Environmental Stressors:** Factors such as pollution, salt spray, and humidity can degrade insulator materials over time, compromising their effectiveness.
- **Aging Infrastructure:** Many power grids rely on outdated materials that may not withstand modern environmental challenges.

## **THE NEED FOR RESILIENT INSULATORS AND HARDWARE**

To ensure long-term grid reliability, it is essential to develop insulators that can withstand these challenges. Climate change resilient insulators and hardware offer several advantages:

1. **Enhanced Durability:** Utilizing advanced materials that resist degradation from environmental stressors prolongs the lifespan of insulators.
2. **Improved Performance:** Resilient insulators can maintain electrical performance under extreme conditions, reducing the risk of outages and failures.
3. **Cost-Effectiveness:** Investing in durable hardware materials can reduce maintenance costs and improve overall system reliability, leading to savings in the long run.

## **INNOVATIONS IN INSULATOR TECHNOLOGY AND ASSOCIATED HARDWARE**

Recent advancements are paving the way for the development of climate change resilient insulators and hardware :

- **Composite Materials:** Incorporating materials like silicone rubber and polymer composites enhances resistance to UV radiation, moisture, and pollutants.
- **Self-Cleaning Surfaces:** Innovative surface treatments minimize the accumulation of dirt and contaminants, maintaining insulator performance in harsh environments.
- **Smart Monitoring:** Integrating IoT technology allows for real-time monitoring of insulator health, enabling proactive maintenance and reducing the risk of failures.
- **Advancements in Hardware Technology** to ensure trouble free services during life of transmission line.

## **SUBMISSION OF TECHNICAL PAPERS**

Experts who desire to submit case studies or present paper on above topics or any other related topic are welcome to submit the same by 20th January 2025.

## **DATES AND VENUE**

The Seminar will be held on 27 January 2025 (Monday) at CBIP Conference Hall, Malcha Marg, Chanakyapuri, New Delhi. The Seminar timings will be 10.00 AM to 5.30 PM. The registration will start at 9.30 AM on 27 January 2025.

## **WHO SHOULD ATTEND?**

The Seminar will be of special interest to the senior level Professionals working in Power Plant / Power Transmission / Distribution Sector. Stakeholders from Central Govt. / State Govt. officers / Researchers/Academicians, related to power field.

## **REGISTRATION FEE**

Registration fee for the delegates is as follows:

- (i) Rs. 6,000/- per participant.
- (ii) Discounted Fee for the CBIP members will be Rs. 5,000/- per participant.

**GST @ 18% shall be charged extra. GST No. 07AAAJC0237F1ZU**

The Registration fee covers the registration kit, tea/coffee/lunch during the conference. The Conference is non-residential. Participants will have to make their own arrangement for travel, boarding and lodging, etc. All payments be made through DD/ cheque at par in favour of 'Central Board of Irrigation & Power', payable at Delhi or amount deposited/ transferred to CBIP A/c No. 00031110004411, MICR No. 110240001, HDFC Bank, Swift Code : HDFCINBBDEL, IFSC: HDFC 0000003, Address: 209- 214, Kailash Building, 26 Kasturba Gandhi Marg, New Delhi – 110001

**After making of the payment online in respect of the event, the details like UTR/Organization name to be furnished immediately.**

## **SPONSORSHIP OPPORTUNITY**

The Seminar provides an effective opportunity for sponsoring companies to promote their products/services to a focused audience, besides networking with engineers of utility, manufacturers and academic institutions during tea/ coffee and lunch intervals. Sponsors are assured of full visibility with printing of their names on proceedings, banners and other publicity material related to Seminar and will have the privilege of distribution of their product's pamphlets/ catalogues during the conference. Sponsors will also have the privilege of sending delegates exempted from payment of registration fee as indicated hereunder:

<b>Category of Sponsorship</b>	<b>Fee in Rs.</b>	<b>Privileges</b>
<b>Platinum Sponsor</b>	2,50,000	<ul style="list-style-type: none"><li>• Speaking Opportunity</li><li>• Display of Logo on Main banner &amp; other publicity material</li><li>• Free Delegates in the Conclave (08 Nos.)</li><li>• Table space for display of services at the venue</li><li>• Complimentary Advertisement in the Key Journal Published immediately after the event covering report of the event.</li></ul>
<b>Gold Sponsor</b>	1,50,000	<ul style="list-style-type: none"><li>• Display of Logo on Main banner &amp; other publicity material</li><li>• Free Delegates in the Conclave (06 Nos.)</li><li>• Table space for display of services at the venue</li></ul>
<b>Silver Sponsor</b>	1,00,000	<ul style="list-style-type: none"><li>• Display of Logo on Main banner &amp; other publicity material</li><li>• Free Delegates in the Conclave (03 Nos.)</li></ul>

For further details, please contact the Conference Secretariat.

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**Climate Change Resilient Insulators and**  
**Associated Hardware for Long-Term**  
**Grid Reliability**

**27 January 2025**  
**CBIP Conference Hall, Malcha Marg, Chanakyapuri**  
**New Delhi**

**REGISTRATION FORM**

(To be filled in block letters preferably)

Delegate \_\_\_\_\_

(Surname)

(First Name)

Designation \_\_\_\_\_

Name of Organisation \_\_\_\_\_

Organisation GST No. \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ PIN \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Dated \_\_\_\_\_ Signature \_\_\_\_\_

*Registration Form, duly filled in, is to be mailed to the following address:*

**Shri A.K Dinkar, Secretary, CBIP**

**Shri Sanjeev Singh, Director (E), CBIP**

**Contact Person : Shri S.K. Batra, Consultant, CBIP – M : 9811943812, E-mail : batra@cbip.org**

Central Board of Irrigation & Power (CBIP), Malcha Marg, Chanakyapuri, New Delhi -110 021

Phone: 011-26115984/ 26116567; E-mail: cbip@cbip.org

**Note:**

- Photocopies of the registration form can be used for additional requirements, if any.
- Spot registration facilities will also be available, provided the prior information is received.