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CONDUCTORS & INSULATORS THE TRANSMITTERS & GUARDIANS OF ELECTRICITY

OTHER STORIES:

- **INSIGHTS:** Insulator Design Analysis for EHV GIS; FRP Rod Crimping Technologies
- **FOCUS:** Next-Gen Overhead Conductors; Indian Experience & Future Directions for Outdoor Insulation; Porcelain Insulators for Railway Electrification

FROM THE PRESIDENT'S DESK

Dear Readers,

India recently celebrated its 80th Independence Day, a monumental milestone, even as it charts a resolute course toward its 2047 vision of a developed country. In his Independence Day speech from Red Fort, Hon'ble Prime Minister Narendra Modi highlighted energy security and critical minerals as two key focus areas to address future energy- and technology-related challenges. It would be difficult to run the modern world without energy, he noted, adding that vast amounts of electricity are needed to power chips, AI, and data centres. "Energy security is the need of the hour," the Prime Minister rightly stated. This strategic vision is anchored by initiatives such as expanding clean nuclear energy capacity to 100 GW by 2047, backed by legislative milestones like the SHANTI Act and near-term reactor deployments, alongside unlocking nearly 99 percent of India's coastline for deep-sea offshore exploration.

Our members' enterprises deliver the products and solutions which are instrumental in this massive energy transition, and thus the Hon'ble Prime Minister's direction inspires our industry to rise to the occasion by reaffirming our commitment to invest in innovation, quality and build capacities of global scale.

Reflecting on our journey to secure India's energy future, it is heartening to note that total electricity generation capacity has reached approximately 552 GW, with non-fossil sources crossing the 300-GW mark. We must sustain this momentum to ensure supply chain independence. I urge the industry to relentlessly strengthen domestic manufacturing by leveraging key initiatives such as the Production Linked Incentive (PLI) Scheme and the Approved List of Models and Manufacturers (ALMM) for solar photovoltaic modules.

Globally as well, India has significant opportunities to showcase its electrical developments. In this direction, NITI Aayog's recent study identified 12 priority sectors with a potential to drive India's global manufacturing ambitions. For the electrical and allied industry, the report highlights the need for deeper domestic value addition, resilient supply chains, technology and R&D, skilled manpower, and export competitiveness. It also emphasises grid and storage infrastructure and stronger manufacturing ecosystems to support India's clean energy and industrial growth.

Driven by this ambition, the newly approved Pradhan Mantri Surya Sarovar Yojana (PM-SSY)



commits Rs5,070 crore to develop 5,000 MW of floating solar photovoltaic projects integrated with 10,000 MWh of energy storage systems. Initiatives such as these along with the PLI Scheme will accelerate renewable energy deployment across reservoirs, strengthen grid reliability, and boost domestic manufacturing.

A couple of months ago, I shared details regarding IEEMA's vision exercise and our key priorities to better serve the industry. I am happy to inform you that we have actively begun engaging with IEEMA members to advance these goals, focusing on strengthening our policy advocacy, expanding our global footprint, and building centers of excellence. To achieve the best outcomes, we are currently hosting regional connect sessions with members to thoroughly discuss and refine these themes.

Lastly, an update on the 17th edition of ELECRAMA – the world's largest electrical show. This edition, we witnessed a huge surge in demand for space booking, and in line with that, we have added new halls to accommodate maximum industry participation. Do watch out for exciting updates on bookings, roadshows, and more, as we are looking forward to the mega event as much as you are.

I look forward to personally meet many of you at our forthcoming Annual General Body Meeting on September 24, 2026, in Mumbai.

A handwritten signature in blue ink, reading "Vikram Gandotra".

VIKRAM GANDOTRA

Dear Readers,

India celebrated the 80th Independence Day – a milestone reminding us of our nation's progress so far and a vision for the future. For the power sector particularly, we look forward to energy security and domestic self-reliance. IEEMA has always advocated a focus on these two areas, and we continue to urge our members and the industry at large to make advancements in technology development and secure themselves in this area as well.

As India builds on its additional renewable capacities, we must be ready to take bold steps, which in the long run, will create multi-fold benefits for the electrical industry. In line with this, IEEMA organised the very first New Energies Leadership Roundtable 2026. This CXO forum was co-chaired by Ghanshyam Prasad, Chairman, Central Electricity Authority, and IEEMA leaders to exchange ideas and deliberate on strategic recommendations. IEEMA will continue to encourage the next growth phase – where generation, transmission, storage, and grid management progress together.

In August, we also concluded the highly successful 5th edition of E3 – Energise Empower East – held for the first time in Odisha. Delighted to share that we had top government officials inaugurate IEEMA's flagship eastern region two-day event. These included Shri Kanak Vardhan Singh Deo, Hon'ble Deputy Chief Minister & Minister, Energy Dept, Govt of Odisha; Shri Sampad Chandra Swain, Hon'ble Minister of State, Industries Dept, Govt of Odisha; Hemant Sharma, IAS, Additional Chief Secretary, Industries Dept, Govt of Odisha; Vishal Kumar Dev, IAS, Additional Chief Secretary, Energy Dept, Govt of Odisha; Ghanshyam Prasad, Chairperson, CEA; Bhaskar Jyoti Sarma, IAS, Chairman-cum-Managing Director, Odisha Power Transmission Corporation Limited.

Last month, the IEEMA team, along with industry members, took part at CIGRE 2026. Indian Counsellor Dr Shaila Shah inaugurated the IEEMA booth. This participation is strategic and comes at a time when global power systems are undergoing rapid transformation due to renewable energy expansion, electrification, smart grids, and technology.

As we move forward, we have the 11th edition of Metering India 2026, slated for October 8-9, in New Delhi. On October 27-28, we have the 10th edition of Cablewire in Mumbai. We are gearing up for the 17th edition of ELECRAMA – the world's largest



electrical show. We have already received huge demand for space and have added two new halls to cater to maximum industry presence. Soon, we will commence the ELECRAMA roadshows. IEEMA leaders and I look forward to meeting all of you at various locations through our roadshows and strengthening our connection as we move towards the main event.

Given the push towards renewable energy sources and grid modernisation, this edition of IEEMA Journal delves into the consistent growth in demand for Insulators and Conductors. Within the insulators segment, the market is migrating toward higher-voltage, higher-performance, and technically specialised products – presenting an attractive future opportunity. With aggressive transmission expansion underway, members are encouraged to seize opportunities in EHV transmission and substation insulators, distribution-network replacements, and smart-grid applications. For conductors, surging demand is driving an evolution from conventional options to high ampacity conductors. Industry members are urged to pursue continuous R&D and adopt new designs to capture growth opportunities in the distribution segment. I hope you will find this edition timely and insightful. Read more in this edition.

Do stay connected for timely updates on our various activities, ELECRAMA, and more...

CHARU MATHUR

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to us on editor.ieemajournal@ieema.org**

COVER STORY

**Conductors & Insulators:
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of Electricity****14**

As India accelerates grid expansion, renewable energy integration, railway electrification, and power system modernisation, the conductor and insulator industries are entering a new phase of growth. Driven by technological innovation, localisation, and evolving utility requirements, these sectors are playing a pivotal role in building a more efficient, reliable, and resilient electricity network.



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Utilities should shift from initial procurement costs to a life-cycle cost-based evaluation framework. This transition will optimise asset performance and significantly enhance the long-term resilience of the Indian power network, write **NV Ramkumar** and **Dr S Sudalai Shunmugam of Modern Insulators Ltd.**

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Govt of Odisha officials Kanak Vardhan Singh Deo, Dy CM & Minister, Energy Dept; Sampad Chandra Swain, Minister of State, Industries Dept; Hemant Sharma, IAS, Addl Chief Secretary, Industries Dept; Vishal Kumar Dev, IAS, Addl Chief Secretary, Energy Dept, along with Ghanshyam Prasad, Chairperson, CEA; Bhaskar Jyoti Sarma, IAS, CMD, OPTCL, inaugurated E3 – IEEMA's flagship eastern region event.

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IEEMA successfully concluded the inaugural edition of ElectraNorth 2026, the Northern Region's flagship power and electrical industry conclave.

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