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SURGE ARRESTERS: A COMPREHENSIVE OUTLOOK



OTHER STORIES:

- **CASE STUDY:** Advanced Condition Monitoring Techniques for Surge Arresters
- **INSIGHT:** Challenges faced in Integrating Inverter Based Resources
- **SPECIAL REPORT:** India's total installed RE capacity reaches 220.10 GW





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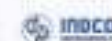
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Mr. Rajesh Parab M: +91 9702269598 | E: rajesh.parab@ieema.org

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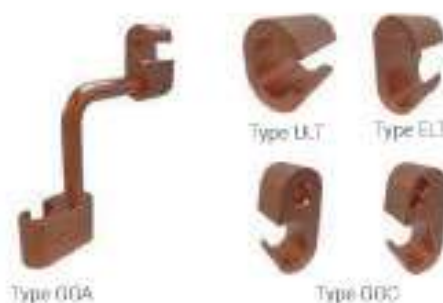
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COVER STORY

THINK TANK 11

Navigating Headwinds and Harnessing Opportunities: A Comprehensive Outlook of the Surge Arrester Market Segment in India

In the Think Tank section of the Cover Story, P Kirushnaraj, Chairman, IEEMA Surge Arrester Division, talks about the evolution of the surge arrester, current market dynamics, the status of raw material and its impact, the influence of market dynamics on the power sector, opportunities amid challenges, the role of policies, technical challenges with solutions, and India's global position and trade dynamics.

GUEST ARTICLE 16

Surge Arresters for the Protection of Electrical Equipment

Guest author O Balagangadhar, a senior member of the IEEMA Surge Arresters division, delves into the growing need of surge arresters, its historical types, technological genesis, special application of zinc oxide arresters, and availability of raw materials.

Cover image courtesy: Raychem RPG



CASE STUDY

Advanced Condition Monitoring Techniques for Surge Arrester: Enhancing Reliability and Predictive Maintenance in Power Systems 20

P Kirushnaraj, Director-R&D, Global Business Support, Sicame Group, presents a technical paper on enhanced reliability and predictive maintenance achieved in power systems through the advanced condition monitoring techniques used for surge arresters.

SPECIAL FEATURES

The Billion Dollar Business Opportunity 34

With 1,911+ meetings and business enquiries worth US\$ 3.78 billion under the Reverse Buyer-Seller Meet platform and 7,528+ meetings and US\$ 2.26 billion worth business generated under the Domestic Buyer-Seller Meet platform, ELECRAMA 2025 was the one-stop business hub for all things electrical.

India's Expanding Free Trade Agreements' Landscape 39

In times marked by escalating global trade tensions and geopolitical uncertainty, IEEMA Research Team presents a lowdown on the winning prospects of India's strategic free trade agreements vista.

SPECIAL REPORT

India's total installed RE capacity reaches 220.10 GW with a record addition of 30 GW

30

Solar energy a major contributor to capacity expansion with 23.83 GW added in FY2024-25, with wind energy adding new capacity of 4.15 GW.

FOCUS

CEA launches STELLAR, a useful tool for discoms and load despatchers

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The indigenously developed tool is specifically designed to assist states in carrying out a comprehensive resource adequacy plan, in line with the resource adequacy guidelines issued by the Ministry of Power in June 2023.

INSIGHT

Challenges Faced in Integrating Inverter Based Resources

45

This paper by SV Varadarajan, Retired Technical Director, M. N. Dastur & Company (P) Ltd, Chennai, analyses the difficulties encountered while integrating inverter-based resources in the grids, while discussing a number of solutions to build resilient hybrid grids that are under research, trial, and implementation.

IEEMA EVENTS

Electrical Fire Safety Conclave, Mumbai

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To promote safe and reliable practices in electrical installations and usage according to the latest national regulations, IEEMA commenced the first of its series of Electrical Fire Safety Conclaves in Mumbai, with Delhi, Bengaluru Kolkata to follow.



POLICY UPDATES

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- CEA plans to concur minimum 13 pumped storage projects of 22 GW for 2025-26.
- Union Commerce & Industry Minister Shri Piyush Goyal calls for investments in emerging technologies to propel 'Viksit Bharat 2047' Vision.
- MNRE notifies guidelines for prototype wind turbine testing.

- MHI achieves sales of more than 1 million EVs in FY2024-25.
- Shri Pralhad Joshi inaugurates a 5.4 GW high-tech plant at Chikhli in Gujarat.



NEWS

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- IndiGrid commissions India's first regulated utility-scale standalone BESS project.
- CIL-DVC sign MoU for 2 x 800 MW thermal power plant in Jharkhand.
- PFCCL incorporates three SPVs for development of transmission projects.
- Prime Minister lays foundation stone for energy projects in Haryana.
- NHPC commences operations for 107.14 MW unit of Karnisar solar project in Rajasthan.
- SECI and KSEB sign agreement for 125 MW/500 MWh BESS project in Kerala.
- NGEL commissions 90 MW unit of Dayapar wind project in Gujarat.
- BPCL and Sembcorp form JV to develop clean energy projects in India.
- BHEL and Hitachi Energy secure HVDC terminal contract for Bhadla-Fatehpur project.
- SJVN Green Energy commissions 241.77 MW solar project in Rajasthan.
- BHEL receives Lol for EPC package for 1,320 MW Korba West thermal power plant in Chhattisgarh.
- NHPC connects 300 MW Bikaner solar PV project with ISTS.
- PFCCL incorporates NES Pune East New Transmission.
- NTPC commissions 245 MW solar project at Nokh, Rajasthan.

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- India and Sri Lanka sign MoU for solar projects and HVDC interconnections.
- MAHAGENCO and Russia's Rosatom sign cooperation agreement for thorium-based SMR development in Maharashtra.
- Bajel Projects commissions 132 kV transmission line for ZESCO in Zambia.
- HFE signs MoU for green hydrogen project in Vietnam.

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- BC Jindal Group to invest Rs1 50 billion in RE components manufacturing.
- Tata Power to install 100 MW BESS in Mumbai.
- L&T forms new subsidiary to develop green hydrogen projects.
- ReNew commissions 1.3 GWp solar project in Rajasthan.
- TPREL signs PPA with NTPC for 200 MW firm RE project.
- JSW Neo acquires 4.7 GW RE platform from O2 Power.
- Evren and NTPC signs PPA for 300 MW FDRE.
- JSL Super Steel signs PPA with Sunsure Energy for 11 MWp solar power.
- Kosol Energie secures 400 MW solar module supply order for NTPC's Khavda project.
- Waaree Renewable Technologies lists on NSE.
- Inox Solar secures land in Odisha for 4.8 GW solar manufacturing plant.
- Kundan Green Energy acquires 11.5 MW waste-to-energy plant in Jabalpur.
- HFE signs PPA with SJVN for 120 MW renewable-plus-storage project.
- AGEL operationalises additional 480 MW renewable projects at Khavda.

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Printed at Indigo Press (India) Pvt Ltd	Designed by Varghese Sakariya

Regd Office – Mumbai

501, Kakad Chambers, 132, Dr A Besant Road, Worli, Mumbai 400 018.
Phone: +91 (0) 22 24930532 / 6528
Fax: +91 (0) 22 2493 2705 • Email: mumbai@ieema.org

Corporate Office – New Delhi

Rishyamook Building, First floor, 85 A, Panchsukla Road, New Delhi 110001.
Phone: +91 (0) 11-23363013, 14, 16
Fax: +91 (0) 11-23363015 • Email: delhi@ieema.org

Branch Office – Bengaluru

K Seetharaman, Assistant Director
State Head – Karnataka, Kerala and Tamil Nadu
Regional Representative-Southern Region
Mobile: +91 99800 04982
Email: k.seetharaman@ieema.org

Branch Office – Kolkata

Sanjoy Mukherjee, Regional Representative-Eastern Region
Mobile: +91 98308 50757
Email: sanjoy.mukherjee@ieema.org

Website: www.ieema.org

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STATE HEADS

Rajesh Parab

Senior Executive Officer & State Head-Maharashtra
Mobile: +91 97022 69598
Email: rajesh.parab@ieema.org

Anuj Kumar Chaturvedi

State Head-UP, Uttarakhand & MP
Mobile: +91 98396 03195 / 95191 38844
Email: anuj.chaturvedi@ieema.org

Ashish Vikram

State Head-UP
Mobile: +91 98733 05589
Email: ashish.vikram@ieema.org

Omkar Pradhan

State Head-Gujarat
Mobile: +91 98199 06433
Email: omkar.pradhan@ieema.org

Mohammad Irfan Parray

State Head-Jammu & Kashmir
Mobile: +91 98584 55509
Email: irfan.parray@ieema.org

Nilankha Chaliha

State Head-North East
Mobile: +91 97063 89965
Email: [Nilankha.chaliha@ieema.org](mailto:nilankha.chaliha@ieema.org)

Rajnish Kaushik

State Head-Haryana, Punjab, Himachal Pradesh & Chandigarh
Mobile: +91 99911 10246
Email: rajnish.kaushik@ieema.org

Sairam Rayepeddi

State Head-Hyderabad
Mobile: 9642345691
Email: sairam.rayepeddi@ieema.org