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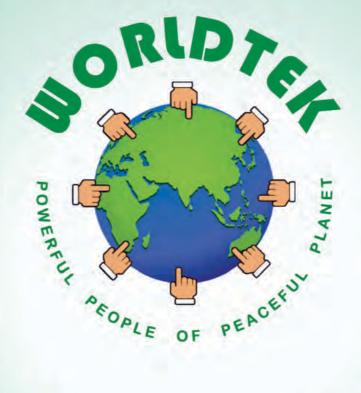
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आपल्या व्यवसायात विविध अडचणी प्रश्न येत असतात. त्यामध्ये तांत्रिक शासकीय नियम. टेंडरमधील विविध अडचणी सोडविण्याबाबत आपल्या संस्थेमार्फत विविध उपक्रम राबविले जातात. त्यामध्ये विविध सेमिनारचे आयोजन कंपनी भेट विविध शासकीय विभागांशी समन्वय साधणे तसेच मंत्रालय व ऊर्जा खाते तसेच महावितरण. सा.बां.विभाग अशा विविध विभागांशी पत्रव्यवहार प्रत्यक्ष भेटून सभासदांच्या प्रश्नांना वाचा फोडण्याचे काम आपण करत असतो. सभासदांना येणाऱ्या अडी अडचणी बाबत त्यांनी आपल्या संघटनेच्या स्थानिक विभागांकडे अथवा मुख्य कार्यालयाकडे लिखित स्वरूपात कळवाव्यात. सदरह प्रश्न सोडविण्यासाठी संघटना कटिबध्द आहे.

आपल्या विद्युत क्षेत्रात नवनवीन संधी उपलब्ध होत असून त्यामध्ये सोलर. EV Charging, AI, Automation अशी अनेक नवीन दालने उपलब्ध होत आहेत. या नवीन क्षेत्रात उभे राहण्यासाठी संघटना आपल्या मदतीला कायम उभी असून त्यासाठी विविध कार्यशाळांचे आयोजन आपण करीत असतो. त्यामध्ये आपला सहभाग नोंदवन आपले तंत्रज्ञान कायम अद्ययावत करत रहाणे ही काळाची गरज आहे.

येत्या ३४ महिन्यात आपल्या संघटनेच्या सर्व विभागांच्या

वार्षिक सभा होणार असून त्या निमित्ताने विविध कंपन्यांच्या उत्पादनांचे प्रदर्शन तांत्रिक चर्चासत्राची रेलचेल असणार असून त्यामध्ये सर्वांनी आपला सक्रिय सहभाग नोंदवावा व "Each One Get One" या उक्तीप्रमाणे प्रत्येक सभासदाने एक नवीन सभासद आपल्या परिवारात जोडावा व आपल्या संघटनेची वज्रमुठ बळकट करावी.

आपल्या संघटनेला भारतातील विविध संस्थांवर प्रतिनिधीत्व असून त्यामध्ये "BIS" या संस्थेच्या विविध समित्यांवर काम करण्यास इच्छुक सभासदांनी संघटनेशी संपर्क करावा. तसेच आपल्याला ज्ञात असलेले तंत्रज्ञान, विविध माहिती याबाबत आपले लेख लिहून संघटनेच्या मुखपत्रात (IECT) छापण्यासाठी पाठवावेत जेणेकरून इतर सभासदांना त्या माहितीचा नकीच उपयोग होईल.

१ मे रोजी महाराष्ट्र दिन व कामगार दिनाच्या निमित्ताने कांदिवली येथे संगीत रजनीचे आयोजन करण्यात आले होते. गेल्या ४५ वर्षापासून सतत आपण सभासदांच्या परिवारासाठी अशा कार्यक्रमाचे आयोजन करीत आहोत. सद्रह कार्यक्रम अतिशय उत्कृष्ठ. दिमाखदाररित्या पार पडला. त्यामध्ये मुंबईतील आपल्या सर्व पदाधिकाऱ्यांनी अतिशय चोख असे नियोजन केले होते.

धन्यवाद!









महासचिवांच्या कलमातून…..







नमस्कार मित्रांनो,

आपल्या संस्थेतर्फे तसेच IECT च्या सहाय्याने महाराष्ट्र दिन तसेच जागतिक कामगार दिनाचे औचित्य राखून मुंबईमध्ये गुरूवार दिनांक १ मे २०२५ रोजी सरोवर सेलिब्रिटी हॉल, कांदिवली स्टेशन जवळ, कांदिवली (पश्चिम) येथे सभासदांसाठी अशोकजी लोया संगीत रजनी आयोजित करण्यात आली होती. साधारणतः ९५

सभासदांनी आपल्या कुटुंबासह त्याचा आनंद घेतला. सदर कार्यक्रमास मे. आर. आर. काबेल. मे. प्रेसिजन प्लास्टिक इंडस्ट्रिज प्रा. लि. तसेच मे. सुप्रिम क्रिएशन यांनी प्रायो जक त्व दिले होते. कार्यक्रमानंतर सुग्रास भोजनाचे आयोजन करण्यात आले होते. सर्व सभासद एकत्र यावेत अशा उददेशाने हा कार्यक्रम आयोजित करण्यात आला होता. हा कार्यक्रम पार पाडण्यासाठी श्री. सतीश सिन्नरकर आणि मुंबई विभागातील सर्व

संचालकांनी अथक परिश्रम घेतले. सदर कार्यक्रमाचे प्रमुख पाहुणे म्हणून अदानी इलेक्ट्रिसिटी मुंबई लिमिटेडच्या उपाध्यक्षा प्राची बनसोडे तसेच इकॅमचे महासचिव श्री. देवांग ठाकूर हे उपस्थित होते.

नवे आर्थिक वर्ष २०२५-२०२६ सुरू झाले आहे, तरी सर्व सभासदांनी आपली आर्थिक वर्षाची सभासद वर्गणी इकॅमच्या कार्यालयात जमा करावी तसेच आपण GST क्रमांक घेतला असेल तर तो इकॅम कार्यालयाला कळवावा. सभासदांना सुचित करण्यात येते की आपण आपल्या विभागीय इकॅम कार्यालयाशी संपर्क साधून आपली वर्गणी जर भरली नसेल तर त्वरीत भरावी. दरवर्षी वर्गणी भरण्याच्या अडचणीतून मुक्त होण्यासाठी जे सभासद साधारण सभासद असतील त्यांनी जास्तीत जास्त संख्येने तहहयात सभासद (Life Member) व्हावे असे मी आपणास आवाहन करतो.

आपल्या आय.ई.सी.टी. मासिकामध्ये आपण आपल्या व्यवसायासंदर्भात विविध लेख छापत असतो. मी आपणास आवाहन करतो की ज्या सभासदांना आपले लेख किंवा उपक्रमांसंबंधी काही माहिती आपल्या आय.ई.सी.टी. मासिकामध्ये

> छापण्यास द्यायची असेल तर ती इकॅम कार्यालयाकडे पाठवावी.

सभासदांनी त्याचप्रमाणे आपली संघटना शक्तीशाली करण्यासाठी तसेच संघटनेची पाळेमुळे संपूर्ण महाराष्ट्रात पोहोचवण्यासाठी आपल्या संपर्कातील नवीन अनुज्ञाप्तीधारक ठेके दारांना संघटनेबद्दल माहिती देऊन नवीन सभासद जास्तीत जास्त प्रमाणात करण्याचे प्रयत्न करावेत असे मी सर्व सभासदांना आवाहन करीत आहे.

सभासदांची यादी अद्ययावत करण्याचा आमचा प्रयत्न अविरतपणे चालू

आहे. सभासदांचे बरेचसे पत्ते बदलले आहेत आणि त्यांना पाठवलेले मेल परत येत आहेत. ज्या सभासदांचा पत्ता, दूरध्वनी क्रमांक तसेच ईमेल आय.डी बदलला असेल तर त्यांनी तो त्वरीत इकॅम मुख्य कार्यालयाला कळवावा.

आपल्याला आपला व्यवसाय करताना काही अडी-अडचणी येत असतील तर त्या अडचणी आपण इकॅम मुख्यालयाला लेखी कळवाव्यात. इकॅमच्या सभासदांना येणाऱ्या अडचणींचे निराकरण करण्यासाठी आम्ही कसोशीने प्रयत्न करू.

धन्यवाद!





he Editor's Desk



Satish Sinnarkar Editor, IECT

Cutting Coal Imports With 300 GW Renewable Energy **By 2030**

National electricity demand in India is on a steady and strong rise, fueled by urbanization, industrial growth, and higher adoption of electric technologies. Hotter summers, intensified by the worsening climate crisis, are also contributing to this surge. Per capita electricity consumption rose from 957 kilowatt-hours (kWh) in 2013 to 1,331 kWh in 2022, indicating that summer demand for electricity will continue to grow in the coming years.

India's dependence on imported coal poses both physical and financial risks. Physical risks include disruptions in the coal supply caused by political changes or natural disasters. Financially, the volatility in energy prices affects both power producers and consumers. While the quantity of thermal coal imports rose by 58 percent between FY 2013 and 2023, the cost increased by 124 percent, contributing to energy inflation and rupee depreciation. Although there has been significant growth in domestic coal production and renewable energy (RE) development over the last five years, these efforts have not led to a decrease in coal imports.

Seasonal trends show that coal imports rise between April and June, by around 10 to 35 percent compared to non-summer months. This is mainly to meet the electricity demand driven by cooling requirements. A focused shift toward renewable energy sources like solar and wind, supported by energy storage systems, could deliver cheaper, more reliable power while reducing macroeconomic risks and conserving foreign exchange reserves.



In 2023-24, India updated its renewable energy targets to reach 500 gigawatts (GW) of non-fossil energy capacity by 2030. The country plans to add 50 GW of renewable capacity every year until 2027-28. Currently, India has around 151 GW from solar and wind, and about 200 GW when including hydro and other sources. In FY 2025, India achieved the highest-ever annual addition of 24 GW of renewable capacity.

During the summer months of 2024, an additional 2.65 MT per month of thermal coal was imported to meet the spike in electricity demand. This extra coal generated about 4.8 billion units of electricity monthly. To replace this with renewable energy, about 33 GW of new RE capacity would be required, a target well within India's current annual goals. Such a move would save approximately \$826 million every year on coal imports during the summer months alone. Extending the benefits throughout the year could save about \$3.3 billion annually.

Eliminating thermal coal imports is challenging but achievable if India remains committed to its RE targets. In 2023-24, imported thermal coal contributed to about 30 percent of India's total electricity generation. To replace this, an additional 236 GW of renewable capacity is needed, which is achievable within India's planned 300 GW RE addition by 2030.

If India installs 50 GW of RE every year as planned, it could eliminate thermal coal imports by 2029. This would save around \$66 billion between 2025 and 2029, and a cumulative \$173 billion by 2034. Achieving these targets would not only result in major foreign exchange savings but would also significantly enhance India's energy security and reduce reliance on imported coal.









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Transformer Accessories

Transformer accessories are components or devices that are used in conjunction with transformers to ensure their safe, efficient, and reliable operation. Some common transformer accessories include:

Essential Accessories

- 1. Bushings: Insulated bushings are used to connect transformers to high-voltage lines or equipment.
- 2. Tap Changers: Tap changers allow for adjustments to be made to the transformer's turns ratio, enabling voltage regulation.
- 3. Breathers: Breathers are used to dry the air entering the transformer, preventing moisture buildup.
- 4. Conservators: Conservators are tanks that store excess oil, allowing for expansion and contraction of the oil due to temperature changes.
- 5. Buchholz Relay: A Buchholz relay is a protective device that detects faults in oil-filled transformers, such as gas buildup or oil leaks.

Monitoring and Control Accessories

- 1. Temperature Indicators: Temperature indicators monitor the transformer's temperature, alerting operators to potential issues.
- 2. Oil Level Indicators: Oil level indicators monitor the transformer's oil level, ensuring it remains within safe operating limits.
- 3. Pressure Relief Devices: Pressure relief devices protect transformers from overpressure, which can occur due to faults or other issues.
- 4. Current Transformers: Current transformers are used to measure current flowing through the transformer.

Other Accessories

- 1. Gaskets and Seals: Gaskets and seals are used to prevent oil leaks and maintain the transformer's
- 2. Oil Sampling Devices: Oil sampling devices allow for the collection of oil samples for testing and analysis.
- 3. Grounding and Bonding: Grounding and bonding accessories ensure the transformer's safe operation and protect against electrical shock.

These accessories play a crucial role in ensuring the reliable operation of transformers and preventing potential issues.

Vital Role of Capacitor

Capacitors play a vital role in electrical systems, and their importance cannot be overstated. Here are some ways capacitors contribute to electrical systems:

Energy Storage and Filtering

- 1. Energy Storage: Capacitors store electrical energy in the form of an electric field, allowing them to release it quickly when needed.
- 2. Filtering: Capacitors can filter out unwanted frequencies or signals, ensuring that only desired signals pass through.

Power Factor Correction and Voltage Regulation

- 1. Power Factor Correction: Capacitors can correct power factor issues, reducing the strain on electrical systems and improving efficiency.
- 2. Voltage Regulation: Capacitors can help regulate voltage levels, ensuring that electrical systems operate within safe and efficient parameters.

Signal Processing and Coupling

- 1. Signal Processing: Capacitors can be used in signal processing applications, such as audio filters or tone controls.
- 2. Coupling: Capacitors can couple signals between stages of an amplifier or other electronic circuit.

Other Applications

- 1. Power Supplies: Capacitors are used in power supplies to filter and regulate output voltage.
- 2. Motor Starting: Capacitors can be used to start motors, providing a boost of power during startup.
- 3. Harmonic Filtering: Capacitors can filter out harmonic frequencies, reducing distortion and improving power quality.

Benefits of Capacitors

- 1. Improved Efficiency: Capacitors can improve the efficiency of electrical systems by reducing energy losses.
- 2. Increased Reliability: Capacitors can help improve the reliability of electrical systems by reducing the risk of power outages and equipment damage.
- 3. Reduced Maintenance: Capacitors can reduce maintenance needs by minimizing the risk of equipment failure.

In summary, capacitors play a crucial role in electrical systems, enabling efficient energy storage, filtering, and power factor correction, among other applications.



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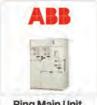
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VASHI APP



Importance, testing and calibration of OLTC

On-Load Tap Changers (OLTCs) are critical components of power transformers, enabling voltage regulation while the transformer is in operation. Here's an overview of their importance, testing, and calibration:

Importance of OLTCs

- 1. Voltage Regulation: OLTCs allow for real-time voltage adjustments, ensuring a stable supply of electricity to consumers.
- 2. Power Quality: By maintaining optimal voltage levels, OLTCs help improve power quality and reduce the risk of equipment damage.
- 3. Grid Stability: OLTCs play a crucial role in maintaining grid stability by regulating voltage levels and preventing power outages.

Testing of OLTCs

- 1. Routine Testing: Regular testing of OLTCs includes inspecting the tap changer mechanism, checking oil quality, and verifying electrical connections.
- 2. Dynamic Testing: Dynamic testing involves simulating various operating conditions to ensure the OLTC's performance and reliability.
- 3. Condition Monitoring: Condition monitoring involves tracking the OLTC's performance and condition in real-time, enabling predictive maintenance.

Calibration of OLTCs

- 1. Tap Position Calibration: Calibrating the tap position ensures accurate voltage regulation and prevents over- or under-voltage conditions.
- 2. Timing and Sequence Calibration: Calibrating the timing and sequence of tap changes ensures smooth operation and minimizes wear on the OLTC.
- 3. Mechanical and Electrical Calibration: Mechanical and electrical calibration involves adjusting the OLTC's mechanical and electrical components to ensure precise operation.

Benefits of Proper OLTC Testing and Calibration

- 1. Improved Reliability: Regular testing and calibration help prevent OLTC failures, reducing downtime and improving overall reliability.
- 2. Enhanced Performance : Properly calibrated OLTCs ensure accurate voltage regulation, improving power quality and reducing equipment stress.
- 3. Extended Lifespan: Regular maintenance and calibration can extend the lifespan of OLTCs, reducing the need for premature replacement.

By prioritizing OLTC testing and calibration, utilities and industries can ensure reliable and efficient voltage regulation, ultimately supporting the stability and quality of the power grid.

Asset performance management of transformer through digitalisation

Asset Performance Management (APM) of transformers through digitalization involves leveraging digital technologies to monitor, analyze, and optimize transformer performance. Here's an overview:

Benefits of Digital APM for Transformers

- 1. Predictive Maintenance: Advanced analytics and machine learning enable predictive maintenance, reducing downtime and improving overall reliability.
- 2. Real-time Monitoring: Real-time monitoring of transformer performance allows for swift identification and response to issues, minimizing the risk of failures.
- 3. Optimized Performance : Digital APM enables data-driven decision-making, optimizing transformer

performance and extending its lifespan.

4. Reduced Maintenance Costs: Predictive maintenance and condition-based monitoring reduce maintenance costs and minimize unnecessary repairs.

Key Digital Technologies for Transformer APM

- 1. IoT Sensors: Internet of Things (IoT) sensors monitor transformer performance in real-time, providing valuable data on temperature, oil quality, and other critical parameters.
- 2. Advanced Analytics: Advanced analytics and machine learning algorithms analyze data from IoT sensors and other sources, identifying trends and predicting potential issues.



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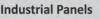
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- 3. Cloud Computing: Cloud computing enables secure storage and analysis of large datasets, facilitating remote monitoring and collaboration.
- 4. Digital Twins: Digital twins create virtual replicas of physical transformers, allowing for simulations and predictive analysis.

Applications of Digital APM for Transformers

- 1. Condition Monitoring: Real-time monitoring of transformer condition, including temperature, oil quality, and other parameters.
- Predictive Maintenance: Predictive maintenance scheduling based on advanced analytics and machine learning.
- 3. Performance Optimization : Optimization of transformer performance through data-driven decision-making.
- 4. Fault Detection: Early detection of faults and anomalies, enabling swift response and minimizing

downtime.

Implementation Considerations

- 1. Data Quality: Ensuring high-quality data from IoT sensors and other sources is crucial for accurate analysis and decision-making.
- 2. Cybersecurity: Implementing robust cybersecurity measures to protect sensitive data and prevent unauthorized access.
- 3. Integration: Integrating digital APM solutions with existing systems and infrastructure.
- 4. Training and Support: Providing training and support for personnel to effectively utilize digital APM solutions.

By leveraging digital technologies, utilities and industries can optimize transformer performance, reduce maintenance costs, and improve overall reliability.

Inspection procedures to be performed on transformers

Regular inspection procedures are crucial to ensure the reliable operation of transformers. Here are some common inspection procedures:

Visual Inspections

- 1. External Inspection: Check for signs of oil leaks, rust, or corrosion on the transformer's exterior.
- 2. Insulator Inspection: Inspect insulators for cracks, damage, or contamination.
- 3. Bushing Inspection: Check bushings for signs of wear, damage, or oil leaks.

Electrical Inspections

- 1. Insulation Resistance Testing: Measure insulation resistance to detect potential issues with the transformer's insulation.
- 2. Polarization Index Testing: Perform polarization index testing

to assess the condition of the transformer's insulation.

3. Transformer Turns Ratio (TTR) Testing: Verify the transformer's turns ratio to ensure it is within acceptable limits.

Oil Inspections

- 1. Oil Sampling: Collect oil samples for testing and analysis.
- 2. Oil Quality Testing: Analyze oil samples for signs of degradation, contamination, or moisture.
- 3. Oil Level Check: Verify the oil level is within the recommended range.

Other Inspections

- 1. Temperature Monitoring: Monitor the transformer's temperature to detect potential issues.
- 2. Grounding and Bonding Inspection: Verify the transformer's grounding and bonding system is

secure and effective.

3. Cooling System Inspection: Inspect the cooling system to ensure it is functioning properly.

Frequency of Inspections

- 1. Routine Inspections: Perform routine inspections regularly, such as monthly or quarterly.
- 2. Scheduled Maintenance: Schedule maintenance inspections based on the transformer's age, condition, and usage.
- 3. Special Inspections: Perform special inspections after unusual events, such as faults or extreme weather conditions.

By following these inspection procedures, utilities and industries can identify potential issues early, reduce downtime, and extend the lifespan of their transformers.



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M/s. Akanksha Power & Infrastructure (AKANKSHA) is a company incorporated in Nashik, Maharashtra in the year 2008 and has been working in the Power Quality sector. We have our manufacturing facilities / works in 2 locations at Nashik, Maharashtra. The Company has been successful in managing Rural Electricity Distribution, in two Divisions in TPNODL, Odisha since 2010, having reduced AT&C drastically with a consumer base of approximately 2,37,000. The Company has developed the capability to manage the AT&C loss by adopting the best practices in the Electricity distribution management starting from Automatic Meter Infrastructure (AMI) to take care of commercial losses in the system; at the same time, the best practices to provide Power quality solution to take care of technical losses in the system. M/s. Akanksha bagged the prestigious National Award from the Hon'ble Minister of Power, Govt. of India for meritorious performance in Rural Distribution management. (franchiseesegment)











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TELAWNE POWER EQUIPMENTS PVT LTD was formed to manufacture Oil Immersed Power and Distribution Transformers, Resin Impregnated Dry type Transformers, Cast Resin Dry type Transformers, Unitised & Pad Mounted Substations. The total installed capacity is 10,000 MVA per annum. Apart from Manufacturing and repairing, TELAWNE delivers after sales services to its customers worldwide. Over the years of quality products and sincere service and dedication to its customers, TELAWNE has earned distinguished customers which include leading Government and Semi-Government undertakings, Real Estate & commercial complexes, Refineries, Chemical, Automobile Industries, Power sector, Pharma, Paper, Steel and various other Industrial application apart from State & private utilities, In a detailed discussion with the Editor of IECT, Mr. Rakesh Telawne answered every point asked regarding the manufacturing processes. We present here excerpts of the discussion for the readers of IECT. - EDITOR

What are the different types of transformers you manufacture and what are their applications?

Ans: At Telawne Power Equipments Pvt. Ltd., we manufacture a wide range of both oil-filled and drytype transformers. Our oil-type portfolio includes Extra High Voltage (EHV) Transformers Power Transformers, Distribution Transformers, Inverter Duty Transformers, Furnace Transformers, Corrugated Transformers and specialized units like Compact Substations (CSS), Pad-

Mounted Transformers. These are used in transmission, distribution, renewable energy, infrastructure projects and industrial applications.

Our dry-type transformers, including Cast Resin and VPI types, are ideal for indoor and fire-sensitive environments such as hospitals, commercial buildings, metros and malls. Each design is tailored for high reliability, safety, and performance across diverse sectors."

Landscape Redefined















How do you calculate the efficiency of your transformer, and what factors affect it?

Ans: It's determined by measuring no-load (core) and load (copper) losses during routine testing as per IS/IEC standards.

Key factors affecting efficiency include:

- Core and winding material quality
- Load conditions
- Cooling system
- Harmonics in the load
- Manufacturing precision
- Regular maintenance

How do you ensure quality control in transformer manufacturing?

Ans: We strictly adhere to quality norms as per ISO / international standards and customer specifications, with our manufacturing processes driven by quality plan and robust, system-oriented operations.

What are the safety protocols and regulations that you follow in transformer manufacturing?

Ans: At Telawne Power Equipments Pvt. Ltd., safety is always our top priority. We never compromise on safety protocols

during transformer manufacturing. All our technicians are equipped with proper PPE (Personal Protective Equipment) and undergo regular safety training to ensure strict adherence to safety standards. Our goal is to maintain a zero-incident work environment through discipline, awareness, and proactive measures

Please give information about your transformer manufactured for a specific application, such as power distribution or industrial use?

Ans: Our Extra High Voltage Power Transformers (Up to 150 MVA, 161 kV) are

used in transmission networks to step up/down voltage for long-distance power transfer.

Our Inverter Duty Transformers (Up to 5 winding, 20 MVA, 36 kV) are used in renewable segment; connecting clean energy to the grid.

Our Dry Type Transformers (Cast Resin & VPI, Up to 5 MVA, 36 kV) are Ideal for indoor, fire-prone areas like malls, hospitals, metros, Data Centre etc.

What are the key considerations when designing a transformer for high-voltage or high-current applications?

Ans: For high-voltage or high-current transformers, we focus on thermal management, hot spot temperature control, and the ability to handle





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continuous overloading. We also integrate online monitoring for real-time health checks and design for sustainability and reliability, ensuring long life and maintenance free performance.

How do you troubleshoot common issues in transformer manufacturing, such as winding faults or insulation problems?

Ans: At Telawne Power Equipments Pvt. Ltd., we conduct stringent in-house testing to ensure the highest level of transformer reliability and performance. Our testing procedures include heat run tests, lightning impulse tests, Dissolved Gas Analysis (DGA), Sweep Frequency Response Analysis (SFRA), and more. These tests are designed to detect even the minutest faults such as insulation breakdown, overheating, or mechanical damage to the windings.

We have successfully performed numerous short-circuit type tests, including one of the highest-rated tests in the world — a 20 MVA, 5-winding Inverter Duty Transformer. Our rigorous quality assurance ensures that no minor defect goes undetected, delivering safe and dependable transformers to our clients.

What are the common causes of transformer overheating, and how do you prevent it?

Ans: Common causes of transformer overheating include overloading, poor ventilation, insulation failure,

high ambient temperatures, and inadequate cooling systems. We prevent overheating through proper thermal design, use of high-quality insulation materials, efficient cooling systems (oil or aircooled), and built-in temperature monitoring and protection devices. We also emphasize routine maintenance and offer IoT-based monitoring for real-time performance tracking

and early fault detection

What are your strategies for managing stress and pressure in a demanding manufacturing environment?

Ans: Our team works as a one big family. As part of our team engagement programme, we celebrate all our employees' birthdays on weekly basis along with fun activities. We also organize picnics, get-together events and celebrate all the festivals together.

How do you prioritize ongoing learning and professional development in your role as a transformer manufacturer?

Ans: As a transformer manufacturer, I believe ongoing learning is essential to stay ahead in a rapidly evolving industry. At Telawne Power Equipments Pvt. Ltd., we prioritize continuous improvement by staying updated with the latest global standards, investing in R&D, attending industry seminars and conferences like ELECRAMA, Re+, IEEE etc and adopting new technologies such as IoT-based monitoring and smart substations. Personally, I encourage a culture of learning within the organization through regular training, technical workshops, and cross-functional knowledge sharing to ensure our team remains future-ready and innovation-driven.







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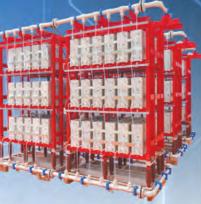
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Avaada Energy plans to raise Rs 40 billion through IPO

Reportedly, Avaada Energy is planning to raise Rs 40-50 billion for expansion through an initial public offering (IPO). A major portion of the funds will be allocated towards the development of a 5 GW integrated solar module and cell manufacturing facility in Greater Noida, Uttar Pradesh. Avaada has begun engaging with top investment banks and law firms for the IPO, which is currently in the early stages of planning.

RVNL to set up 300 MW hybrid renewable energy project for Indian Railways

Reportedly, Rail Vikas Nigam Limited (RVNL) is planning to develop a 300 MW hybrid renewable energy project in collaboration with the Ministry of Railways, as part of efforts to support Indian Railways' green energy obligations.

The project is expected to include solar, wind, and energy storage components, with an estimated investment of over Rs 15 billion. The hybrid project,

which is likely to be located in Bihar, Jharkhand, or Karnataka, will also incorporate energy storage to ensure firm power supply during peak hours. RVNL will lead the infrastructure development, including transmission systems, while partnering companies will contribute technology, solar modules, or wind components as per their expertise.





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मुंबईच्या इकॅम सदस्यांनी महाराष्ट्र दिन व कामगार दिन दणक्यात साजरा केला













इकॅमच्या मुंबईतील सदस्यांनी या वर्षी देखील १ मेचा महाराष्ट्र दिन आणि कामगार दिन दणक्यात साजरा केला. कांदीवलीच्या सरोवर हॉटेलच्या भव्य सभागृहात सायंकाळी ६ ते रात्री ११ वाजेपर्यंत अनेक सदस्य व त्यांच्या धर्मपत्नी यांच्या उत्साही उपस्थितीत हा संगीतमय सोहळा पार पडला. दोन वर्षांपूर्वी आकस्मिक निधन पावलेल्या आर आर काबेलचे संचालक. कै अशोक लोया यांच्या स्मृती प्रित्यर्थ या कार्यक्रमाला 'अशोक लोया संगीत रजनी' असे नाव देण्यात आले होते. १ मे २०२२ च्या याच कार्यक्रमात अशोक लोया यांनी उत्स्फूर्त गाणी गाऊन सर्वांची वाहवा मिळवली होती. लोया हे इकॅमचे खंदे पाठीराखे होते.

या प्रसंगी इकॅमचे महासचिव श्री देवांग ठाक्र सपत्नीक उपस्थित होते. यानिमित्त खास पाहण्या म्हणून आलेल्या अदानी इलेक्ट्रिसटीच्या एजिएम प्राची बनसोडे मॅडम यांचा महासचिवांच्या हस्ते सन्मान करण्यात आला. प्रारंभी आयईसिटीचे संपादक सतीश सिन्नरकर यांनी सर्वांचे स्वागत करून छोटी प्रस्तावना केली आणि लगेचच मनोरंजनाच्या कार्यक्रमाला सुरुवात झाली. एम्स मल्टिमिडीया या कंपनीच्या गायक, वादक कलाकारांनी मराठी, हिंदी व गुजराती गाणी गाऊन सर्वांचे भरपूर मनोरंजन केले. विशेष म्हणजे या वेळी दोन तुफान लावण्या सादर झाल्या ज्यात अनेकांनी नृत्य करून खूप मजा आणली.

इकॅमचे महासचिव श्री देवांग ठाकूर यांनी सर्वांना महाराष्ट्र दिवसाच्या शुभेच्छा दिल्या आणि आयोजन समितीचे कौतुक केले. इकॅम संचालक श्री पुरणसागर यांनी सर्वांचे आभार मानून या वर्षी मुंबईतील सदस्यांसाठी वेगवेगळे कार्यक्रम आयोजित करण्याचे मनोगत व्यक्त केले.

या कार्यक्रमासाठी आर आर काबेल, प्रेसिजन प्लास्टिक आणि सुप्रीम क्रिएशन या नामवंत कंपन्यांनी प्रायोजकत्व स्वीकारून संघटनेला सहकार्य केले. तिन्ही कंपन्यांचे स्टॉल लावण्यात आले होते आणि तिन्ही कंपन्यांच्या प्रतिनिंधींचा संघटनेच्या वतीने सत्कार करून त्यांना भेटवस्तू देण्यात आल्या. महाराष्ट्र गीताने कार्यक्रमाची सांगता झाली.

शेवटी सर्वांनी सुग्रास भोजनाचा आस्वाद घेतला आणि हा कार्यक्रम यशस्वीपणे पार पडला.

कार्यक्रम यशस्वी करण्यासाठी सर्वश्री सतीश सिन्नरकर. कल्पेश पटेल, पुरणसागर, नंदिकशोर बडगुजर, मुंबईतील इकॅमचे संचालक, कॅम्पेन मास्टर्स आणि इकॅमचे कर्मचारी यांनी विशेष परिश्रम घेतले.









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BE BHARAT ELECTRICALS

Manufacturing of Distribution Transformers



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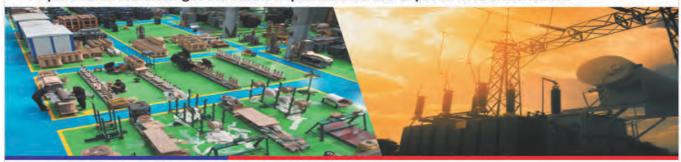
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महाराष्ट्र दिन व कामगार दिन (क्षणचित्रे) प्रायोजकांच स्टॉल व सत्कार















१ मे रोजी, महाराष्ट्र दिनी, इकॅम ने सुहाना सफर कार्यक्रम आयोजित केला होता. सुहाना सफरमध्ये मराठी, हिंदी आणि गुजराती गाणी गायली गेली आणि मेळावा खूप छान झाला. कार्यक्रमात सुमारे ९५ इकॅम सदस्य आणि सुमारे ५० सदस्यांच्या पत्नी आल्या होत्या. महिलांचे गजरे देऊन स्वागत करण्यात आले आणि सदस्यांना गुलाबाची फुले आणि मलाई पेडा देण्यात आला. इकॅम चे जनरल सेक्रेटरी श्री. देवांग ठाकूरजी सह:पत्नी, कोकण भागातील श्री. उल्हास वज्रे जी आणि श्री. गद्रे जी यांनी कार्यक्रमाची शोभा वाढवली. मुंबई संघातील श्री. भरत पटेल जी, श्री. पूरण सागर, श्री. कल्पेश पटेल, श्री. राजेंद्र गरगवे, श्री. नंद किशोर हे त्यांच्या पत्नींसह आले होते. कार्यक्रमात श्री. गोपाल झा, श्री. विनोद शर्मा, श्री. शेष कुमार शर्मा, श्री. राजू वाकोडे, श्री. प्रधान, श्री. हरीश उदेशी हे सर्व उपस्थित होते. I.E.C.T चे संपादक श्री. सतीश सिन्नरकर त्यांच्या पत्नीसह उपस्थित होते. विशेष पाहण्या म्हणून अदानी इलेक्ट्रिसिटी मुंबई लिमिटेडच्या सहाय्यक उपाध्यक्षा प्राची बनसोडे यांचा इकॅम चे जनरल सेक्रेटरी श्री. देवांग ठाकूर यांनी सत्कार केला.

आय.ई.सी.टी.चे संपादक श्री. सतीश सिन्नरकरजी यांचे विशेष आभार.

इकॅम मुंबई टीम

मा. श्री. सतीश सिन्नरकर साहेब

सर कालचा १ मे महाराष्ट्र दिनाच्या निमित्त आयोजन केलेला सुहाना सफर ह्या च- चळवळर संगीताचा कार्यक्रम अगदी उल्हासमय वातावरणात अगदी कुणालाही कंटाळा न येता सर्वांनी आनंद घेतला व रोजच्या कामकाजाच्या त्रासातून आराम न करता सर्व ठेकेदारांना तुम्ही ह्या कार्यक्रमाच्या माध्यमातून नवीन ऊर्जा दिली व ती काही ठेकेदारांनी सभागृहात दाखवली अश्या कार्यक्रमामुळे सदस्याचे मनोबल वाढले फ्रेश वातावरणात कालचा दिवस गेला .असेच कार्यक्रम ह्या पृढे घेत रहावे ही विनंती

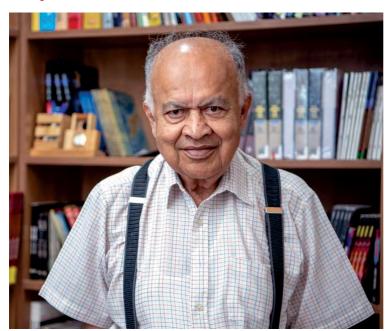
स्पेशली थँक्स सिन्नरकर साहेब व त्यांच्या पूर्ण टीम ला जे आवर्जुन ECAMच्या प्रत्येक कार्यक्रमात हातभार लाऊन संस्थेला सतत कामात मदत करत असतात त्यामुळे संस्थेला स्पॉन्सर-जाहिराती, स्टॉल मिळवुन तुम्ही नेहमी पहिल्या क्रमांकावर असतात असं दिसते.

तम्हाला परमेश्वर अशीच धावपळ करण्यासाठी ऊर्जा कायम ठेवेल अशी प्रार्थना करतो.

नंदिकशोर बडगुजर



Dr Jayant Narlikar: Visionary Astrophysicist, Science Populariser and Institution Builder Is No More



Dr Jayant Vishnu Narlikar, one of India's most distinguished astrophysicists and a global name in theoretical cosmology, passed away in Pune on Tuesday at the age of 86. His death marks the end of an era in Indian science, leaving behind a towering legacy of intellectual brilliance, fearless scientific inquiry and unwavering commitment to public science education.

Best known internationally for the Hoyle-Narlikar theory of gravity, developed in collaboration with British astronomer Sir Fred Hoyle, Dr Narlikar brought a bold and alternative perspective to mainstream cosmology. The Hoyle-Narlikar theory offered a formulation of gravitation that synthesised Einstein's general relativity with Mach's principle, proposing that the inertial mass of a particle depends on the distribution of mass across the universe—an idea that challenged conventional big bang cosmology and continues to stimulate scientific debate.

Born on 19 July 1938, at Kolhapur in Maharashtra, Dr Narlikar was the son of noted mathematician Vishnu Vasudev Narlikar. He studied at Banaras Hindu University before going on to the University of Cambridge, where he worked closely with Fred Hoyle. He earned his PhD in 1963 and soon gained prominence as a young cosmologist unafraid to contest established paradigms.

Dr Narlikar served on the faculty of Cambridge and later returned to India, where he committed himself to nurturing scientific talent and promoting a culture of excellence in astrophysics. In 1988, he became the founding director of the Inter-University Centre for Astronomy and Astrophysics (IUCAA) in Pune which he built into a world-class institution. He remained associated with IUCAA as professor emeritus.

Equally passionate about public engagement, Dr Narlikar was a prolific writer in English and Marathi. He authored numerous books—both technical and popular-including science fiction and essays aimed at making complex scientific ideas accessible to lay readers. His outreach

efforts made him a beloved figure beyond the scientific community, inspiring generations of students and amateur astronomers.

A recipient of several prestigious honours, Dr Narlikar was awarded the Padma Bhushan (1965) and the Padma Vibhushan (2004), two of India's highest civilian awards. He was elected Fellow of the Indian National Science Academy and the Third World Academy of Sciences, among others. Internationally, he held visiting professorships and was often invited to speak on cosmology and the philosophy of science.

Despite his international stature, Dr Narlikar remained rooted in Indian science, advocating for indigenous research and voicing concern over pseudoscience and uncritical thinking. He was known for his integrity, humility, and unflinching belief in the scientific method.

Dr Narlikar is survived by his wife, Dr Mangala Narlikar, a mathematician, and their three daughters.

In mourning his passing, India has lost not just a scientist of rare calibre but also a tireless champion of rationality and curiosity. His work will continue to influence and challenge future generations in the quest to understand the cosmos.



Wire & Cable Market Review

India's largest cable and wire manufacturer Polycab India ended financial year 2024-25 (FY25) on a high, delivering another strong quarter of double-digit growth and market share gains.

This coupled with margin expansion, operating breakeven for its fast-moving electrical goods (FMEG) business, and steady exports outlook for FY26 is expected to support the stock.

The stock is currently trading at Rs 5,765 a share.

Sales in the fourth quarter (Q4) of FY25 were led by the domestic cable-and-wire (C&W) segment, which posted a 27 per cent volume growth year-on-year (Y-o-Y).

While the growth was on the back of infrastructure and real estate capital expenditure (capex), cables did better than wires with double-digit growth.

Revenues of the cable-and-wire business grew 24 per cent Y-o-Y and was dragged down by lower exports due to execution delays, with a large order spilling over into Q1FY26.

In comparison, segment revenue growth for Havells came in at 21 per cent, RR Kabel at 28 per cent, and KEI Industries at 35 per cent.

Given the domestic growth, Polycab gained 100 basis points (bps) in market share, taking the total to over 26 per cent.

The margins in the segment at 15.1 per cent was ahead of Street estimates, and was led by operating leverage and product mix.

Some of the gains were, however, offset by lower contribution of exports.

Despite the strong show, the company has retained its 11-13 per cent margin guidance in the medium to long term, factoring in the capacity expansion and brand/R&D investments.

Demand for the cable-and-wire business is expected to remain strong on the back of improvement in corporate investment, government capex, and the real estate sector.

Though competitive pressures will increase in the domestic C&W industry, Polycab's formidable cash conversion profile, return on invested capital (ROIC) of 40 per cent, and cost competitiveness (with reach) will act as a shield.

The FMEG segment reported a growth of 33 per cent Y-o-Y, led by wider network and a focus on premiumisation (about a fifth by volume) across categories.

After 10 consecutive quarters of losses, the FMEG segment turned positive at the operating (earnings before interest and taxes) level.

This was aided by improved product mix and better absorption of fixed costs.

Going ahead, the company is confident of growing at twice the industry growth rate as it continues to expand distribution and increase share of premium products at a

The engineering procurement and construction (EPC) segment grew by 47 per cent, led by the execution of the revamped distribution sector scheme, the government scheme to improve the power distribution sector. There is a strong demand in cables and large order win from the telecom sector.

Market expects strong growth momentum to continue for next two years, after that growth trajectory can come down with slight moderation in margins, given that two large new players are expected to start their operations.

The brokerage has downgraded the stock keeping in view the additional competition in cables and wires.

SJVN announces auction results for 1,200 MW solar projects with 2.4 GWh energy storage systems

SJVN Limited has announced the results of its auction for 1,200 MW of interstate transmission system connected solar power projects integrated with 600 MW/2,400 MWh energy storage systems.

SAEL Industries, Jindal India Renewable Energy, Sembcorp Green, and JBM Renewables emerged as successful bidders, securing 150 MW, 300 MW, 150 MW, and 150 MW respectively, each at a tariff of Rs 3.32 per kWh. Fastnote Biofuels (Hindustan Power) won 100 MW at Rs 3.33 per kWh. Reliance NU Energies (Reliance Power) was awarded 350 MW, out of a quoted 600 MW at Rs 3.33 per kWh through the bucket-filling method. The auction, which was floated in September 2024, permitted bids ranging from a minimum of 50 MW to a maximum of 600 MW.



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Oil: India to save Rs 1.8 lakh cr on import bill

ndia, the world's third largest oil importing and consuming nation, is likely to save as much as Rs 1.8 lakh crore on import of crude oil and LNG if the trend of softening international energy rates continues,

India, which meets over 85 per cent of its crude oil needs through imports, spent \$242.4 billion on buying crude from overseas in the fiscal year ended March 31, 2025.

With domestic production meeting roughly half of the demand, it also spent \$15.2 billion on import of liquefied natural gas (LNG) in the fiscal.

Oil prices in international markets fell to over fouryear low of \$60.23 per barrel earlier this week on fears of rising global supply at a time when demand outlook is uncertain.

Brent crude and US West Texas Intermediate crude, which fell to their lowest since February 2021, have since risen to \$62.4 on signs of more Europe and China demand and less US output.

Still the rates are \$20 per barrel lower than March 2024 when petrol and diesel prices were cut by Rs 2 per litre each ahead of general elections.

"Icra expects average crude prices for FY2026 (April 2025 to March 2026 fiscal year) to remain in the \$60-70 per barrel range," the rating agency said in a note.

At these levels, earnings of upstream companies is estimated at Rs 25,000 crore for FY2026.

Upstream companies are ones that produce crude oil.

"However, there would be savings of Rs 1.8 lakh crore for crude imports and Rs 6,000 crore for LNG imports," it said.

For fuel retailers, the marketing margins on autofuels will remain healthy, while LPG under-recoveries are likely to reduce, Icra said.

Uncertainty related to global tariffs and their impact on growth, coupled with an announcement by OPEC+ to steadily withdraw their production cuts, starting with 411,000 barrels per day addition from May 2025 and another 411,000 bpd from June 2025, have resulted in oil prices declining from about \$77 a barrel as on March 31 to about \$60-62.

Stating that India meets a large portion of its domestic crude oil requirements through imports, Icra



said in the scenario where crude remains in \$60-70 a barrel range, the profit before tax for upstream players in FY2026 is expected to be lower by Rs 25,000 crore.

In spite of this, Icra foresees the capex plans of domestic upstream players to remain intact.

Marketing margins on auto fuels for oil marketing companies (OMCs) would remain above long term average of Rs 2.5-4 a litre and under recoveries on LPG are expected to reduce with decline in crude prices.

While petrol and diesel prices are deregulated, the government controls cooking gas LPG prices.

OMCs sell the fuel at way below cost and are compensated for the under-recovery by way of subsidy from the government.

Lower LPG under-recovery and compensation by the government would support profitability of downstream companies, despite the increase in excise duty on auto fuels by Rs 2 a litre with effect from April 8, 2025.

However, there would be inventory losses for refiners owing to the sharp decline in crude prices.

Moreover, further hikes in excise duty can not be ruled out.

Icra said the pricing for Administered Price Mechanism (APM) gas and LNG imported from Qatar are linked to crude oil prices.

"Decline in crude prices will lead to a moderation in gas prices, which could translate to significant savings on term LNG imports.

"If crude oil prices sustain between \$60-70 per barrel, Icra projects the savings in Qatar LNG imports at Rs 6,000 crore in FY2026 vis-à-vis FY2025," the note added.

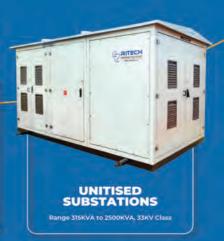
Source: PTI

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Viksit Bharat Ka Viksit Wire

KEI's Role in Powering India's Infrastructure Revolution and Beyond

As India accelerates its journey toward becoming a Viksit Bharat—a fully developed, infrastructure-strong, and economically self-reliant nation—the demand for safe, efficient, and future-ready electrical systems is at an all-time high. At the heart of this transformation is KEI Industries Limited, one of India's leading wire and cable manufacturers, whose innovations are quietly powering the nation's ambitions.

Branded under the vision "Viksit Bharat Ka Viksit Wire", KEI is not just a manufacturer of cables; it is a strategic enabler of India's growth story. From electrifying major industrial hubs to wiring high-rise prestigious mega-projects, KEI wires and cables form the critical nerve system of a nation on the move.

A Legacy of Trust, Built for the Future

Established over five decades ago, KEI has steadily expanded its footprint, delivering world-class electrical solutions built on the pillars of quality, safety, and innovation. As the energy and infrastructure sectors adopt smarter and greener technologies, KEI has stayed ahead of the curve by integrating sustainable practices into its manufacturing and R&D processes.

One of the most notable steps in this direction is the launch of ConFlame Green+—a revolutionary, environmentally conscious wiring solution that offers enhanced flame-retardant properties, low smoke emission, and reduced toxicity. It is designed to meet the dual demands of building safety and environmental responsibility, making it a preferred choice for modern construction and industrial projects.

Sustainability at the Core: ConFlame Green+

The product ConFlame Green+ is a timely innovation that reflects KEI's foresight into the future of electrical infrastructure. In a sector where fire safety and ecoregulations are becoming increasingly stringent, ConFlame Green+ sets a new benchmark. It supports green building norms and helps customers meet both safety and ESG compliance standards.

For architects, builders, EPC contractors, and

developers committed to responsible construction, ConFlame Green+ offers a future-proof solution—one that supports India's push toward sustainable infrastructure.

Brand Visibility on a National Stage: KEI x RCB **Partnership**

While KEI continues to grow its presence in industrial and institutional segments, it has also taken bold strides in consumer brand visibility. A key highlight of this initiative is KEI's ongoing partnership with Royal Challengers Bengaluru (RCB) in the 2025 edition of the Men's T20 Cricket League, marking the third consecutive year as Principal Partner.

This partnership has offered KEI a unique opportunity to connect with millions of Indian households and beyond. The KEI logo is prominently displayed on the back of the RCB jersey, alongside global cricketing icon Virat Kohli, whose leadership and credibility mirror KEI's values of excellence, trust, and performance.

For a company deeply rooted in engineering excellence, this collaboration with cricket symbolizes a strategic move to bring engineering brands into the mainstream consumer consciousness—making wires and cables a household conversation about safety and reliability.

Building the Backbone of Viksit Bharat

As India's infrastructure story unfolds—from metro rails to power plants, from green buildings to mega projects—KEI Industries stands firm as a dependable growth partner. With cutting-edge products like ConFlame Green+ and a forward-thinking approach to branding and sustainability, KEI is laying down not just wires and cables—but the very foundation of a safe, sustainable, and Viksit Bharat.

In the years ahead, as India wires itself for a smarter, safer, and greener tomorrow, KEI will continue to lead with innovation, integrity, and impact.



Architectural Lighting

K-LITE INDUSTRIES Launches Innovative LED Architectural Lighting Series

K-LITE INDUSTRIES, an ISO-certified company renowned for its cutting-edge indoor and outdoor lighting solutions, has launched an all-new series of **LED Architectural Lighting** products. As trendsetters in the outdoor lighting industry and strong proponents of the "Make in India" initiative, K-LITE continues to push the boundaries of innovation with its latest range designed for modern urban environments.

This newly unveiled product portfolio showcases a wide range of applications including

- Facade Lighting Pathway Lighting
- In-ground Luminaires Up-Down Lighting
- Billboard Lighting Vertical Light Bars
- Wall Washers Area Lighting Poles

And the highlight - Sleek Polar Lighting Solutions

Backed by over three decades of expertise and a deep understanding of urban illumination, these solutions are crafted to meet the demands of Indian conditions while aligning with global standards. All fixtures are powered by high-performance LEDs that meet **LM-80** standards and are sourced from internationally recognized brands like **Nichia** and **CREE**.

Key Features:

- **High Efficacy**: All luminaires exceed 100 lumens per watt
 - **Certifications**: RoHS, LM-79, and CE compliant
- Versatile Optics: Multiple beam angles and distributions
- Color Temperature Options: Cool White, Neutral White, and Warm White

Sleek Polar Lighting Solutions – The Star of the Series

A standout in this series, the **Sleek Polar Lighting Solutions** are the epitome of modern design. With a clean, compact profile and no visible mounting equipment, this design harmoniously blends with square architectural forms. Its seamless integration and minimalist aesthetics make it the ideal lighting choice for contemporary architectural spaces.

For more details visit our website: www.klite.in

For all enquiries, Contact info@klite.in Phone +91-9500079797 / 044 26257710

K-LITE INDUSTRIES PRIVATE LIMITED

D-10, Ambattur Industrial Estate, Chennai - 600 058

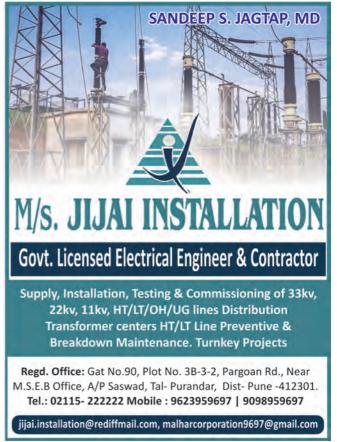
Tel: 26257710, 48581950

Cell: 95000 79797, 95000 85511.

Email: info@klite.in Website: www.klite.in









क्रजीनिर्मितीला बळकटी

मुंबई : 'हरित ऊर्जानिर्मितीसह राज्याला ऊर्जासंपन्न बनवण्यासाठी उदंचन जलविद्युत प्रकल्पांवर राज्य सरकारने लक्ष केंद्रित केले आहे. जलसंपदा विभाग व महाजनको, महाजनको रिन्यूएबल एनर्जी लिमिटेड आणि अवादा ॲका बॅटरीज प्रा. लि. या कंपन्यांमध्ये झालेल्या सामंजस्य करारामुळे महाराष्ट्र ऊर्जानिर्मितीत अधिक सक्षम होईल', असा विश्वास मुख्यमंत्री देवेंद्र फडणवीस यांनी मंगळवारी येथे व्यक्त केला.

'पुढील काळात ऊर्जा क्षेत्रातील कामे विहित कालमयदित संबंधित यंत्रणांनी पूर्ण करण्यासाठी प्रयत्न करावेत', असे निर्देशही त्यांनी यावेळी दिले. मुख्यमंत्री फडणवीस यांच्या उपस्थितीत मंत्रालयात जलसंपदा विभागसोबत नऊ ठिकाणांसाठी तीन सामंजस्य करार करण्यात आले. यावेळी ते बोलत होते. 'या सामंजस्य करारांमुळे उदंचन जलविद्युत प्रकल्पाच्या माध्यमातून ५७ हजार २६० कोटी इतकी गुंतवणूक होणार आहे. याअंतर्गत राज्यात आठ हजार ९०५ मेगावॉट क्षमतेचे उदंचन प्रकल्प उभारले जाणार आहेत. त्यांमधून नऊ हजार २०० इतकी रोजगारनिर्मिती होईल', असे फडणवीस म्हणाले.

'उदंचन जलविद्युत प्रकल्प हे अपारंपरिक ऊर्जा क्षेत्रातील वैशिष्ट्यपूर्ण आणि अद्ययावत तंत्रज्ञान आहे. या जलविद्युत प्रकल्पांद्वारे शेती, उद्योग आणि व्यावसायिक क्षेत्रासाठी विजेची वाढती मागणी पूर्ण करण्याबरोबरच शाश्वत, तसेच हरित उर्जानिर्मिती होणार असल्याने पर्यावरणाचेही रक्षण होईल. राज्याच्या एकूण ऊर्जानिर्मिती क्षमतेच्या ५० टक्के अपरंपरिक ऊर्जानिर्मिती करण्याचा राज्य सरकारचा मानस असून, त्यादृष्टीने नियोजन सुरू आहे', अशी माहितीही फडणवीस यांनी यावेळी दिली.

असे साकारणार प्रकल्प...

महाजेनकोमार्फत घाटघर येथे १२५ मेगावॉट, कोडाळी येथे २२० मेगावॉट, वरसगाव येथे १२०० मेगावॉट आणि पानशेत येथे १६०० मेगावॉटचा प्रकल्प, महाजेनको रिन्यूएबल एनर्जी लिमिटेडमार्फत मूतखेड येथे १९० मेगावॉट, निवे येथे १,२०० मेगावॉट आणि येथे वरंधघाट येथे ८०० मेगावॉटचा प्रकल्प आणि अवादा ॲका बॅटरीज लि. मार्फत पवना फल्याण येथे २,४०० मेगावॉट आणि शिरसाळा येथे १२५० मेगावॉट क्षमतेचा प्रकल्प उभारण्यात येणार आहे.

सौरङार्जेत्न 'समृद्धी'

मुंबई-नागपूर समृद्धी महामार्ग महाराष्ट्र राज्य रस्ते विकास महामंडळाला सौरऊर्जेच्या माध्यमातून महसूल मिळवून देणार आहे. १६४ मेगावॉट वीजविक्रीसाठी महामंडळाने निविदा काढली आहे.

एमएसआरडीसीने हा महामार्ग बांधताना अतिरिक्त जिमनीचे संपादन केले होते. त्या जिमनीचा वापर करीत तेथे सौर ऊर्जा प्रकल्पांची उभारणी – केली आहे. त्यातील नऊ ठिकाणचे एकूण १६४ मेगावॉट वीज प्रकल्प कार्यान्वित झाले आहेत. ही वीज खरेदी करण्यासाठी निविदा काढली आहे.

एमएसआरडीसीने हे सौर ऊर्जा प्रकल्प उभे करण्यासाठी महासमृद्धी रिन्युएबल एनर्जी लिमिटेड (एमईआरएल) ही कंपनी स्थापन केली आहे. या कंपनींतर्गत ही विजेची विक्री होणार आहे. मात्र त्यासाठीचा दर हा सौर उर्जेसाठी बाजारात सध्या असलेल्या सरासरी २.६० ते २.८० रुपये प्रति युनिट या दरापेक्षा अधिक ३.३० रुपये प्रति युनिट निश्चित केला आहे. १० वर्षांसाठी हा वीजखरेदी करार संबंधित खरेदीदाराला एमईआरएलशी करावा लागेल. तसेच संबंधित कंत्राटदाराला पाच वर्षांसाठी निश्चित दराने वीजखरेदी करायची असून त्यानंतर दरवर्षी दरात तीन टक्के वाढ होईल. तसेच संबंधित खरेदीदाराने करारात नमूदपेक्षा १० टक्के अतिरिक्त वीजखरेदी केल्यास त्यापुढील वीज मोफत दिली जाईल.'

सूर्यप्रकाशानुसार वळणारे पॅनल या ऊर्जा प्रकल्पांमध्ये सूर्यप्रकाशानुसार वळणारे अत्याधुनिक सौर पॅनल बसविण्यात आले आहेत. सूर्याची किरणे ज्या दिशेला असतील, त्या दिशेला पॅनेल वळतील, असे पॅनल आहेत.

या नऊ ठिकाणी प्रकल्प

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- सिंदी ड्राय पोर्ट, वर्धा ४ मेगावॉट
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- एकूण १६४ मेगावॉट



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What We Do

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सौरकर्जा क्षेत्रातील विविध कौशल्ये आणि नोकरी व व्यवसायाच्या संधी

ऊर्जा क्षेत्रांतर्गत सौरऊर्जा क्षेत्रात होणाऱ्या वेगवान प्रगतीचे विविध स्तरांवर आणि विविध संदर्भात परिणाम होत आहेत. ऊर्जेची वाढती मागणी. हरितऊर्जेला पाठबळ आणि वाढता प्रचार यांमुळे सौरऊर्जा क्षेत्रात प्रगत तंत्रज्ञान, वाढते कौशल्य व संधी मोठ्या प्रमाणावर प्राप्त होत आहेत. त्याचाच या लेखात घेतलेला हा सविस्तर आढावा...

जागतिक स्तरावरील प्रमुख धोरणात्मक निर्णयानुसार, भारताने २०६० सालापर्यंत संपूर्णपणे पर्यावरणपूरक ऊर्जानिर्मितीचे उद्दिष्ट निर्धारित केले असून, यामध्ये अर्थातच सौरऊर्जानिर्मिती क्षेत्राचे मोठे योगदान राहणार आहे. यासाठी विविध प्रकारे धोरणात्मक निर्णय घेऊन त्यांची अंमलबजावणी करण्याच्या प्रयत्नांना शासनातर्फे विशेष चालना दिली जात आहे. याच धोरणांचा एक प्रमुख भाग म्हणून मोदी सरकारने लागू करून अंमलबजावणी करण्यात आलेल्या उत्पादन प्रोत्साहन योजना' या विशेष धोरणामध्ये ऊर्जा क्षेत्राशी संबंधित उपकरणे व स्टे भाग यांचा आवर्जून समावेश करण्यात आला असून, त्याचे दरगामी

परिणाम आताच दिस् लागले आहेत.

वाद्वत्या रोजगार संधी

वर नमूद केल्याप्रमाणे, हरित ऊर्जा उपक्रमांतर्गत केवळ पर्यवरणपूरक व आर्थिकदृष्ट्या सक्षमच नव्हे, तर रोजगारपूरक ऊर्जा क्षेत्रासाठी परिणामकारक प्रयत्न केले जात आहेत. एका प्राथमिक अंदाजानुसार, पवनऊर्जा क्षेत्रात सुमारे ४० लाख, तर सौरऊर्जा क्षेत्रात सुमारे दहा लाख रोजगारनिर्मिती अपेक्षित आहे. याशिवाय विद्युत वाहन उद्योगात प्रत्यक्षदृष्ट्या एक कोटी व अप्रत्यक्ष स्वरूपात पाच कोटी रोजगार, संधी उपलब्ध होऊ शकतील. यावरून ऊर्जा क्षेत्रातील सौरऊर्जेच्या प्रवेशामुळे आगामी दहा वर्षांत उपलब्ध होऊ घातलेल्या रोजगारसंधींची कल्पना सहजगत्या येऊ शकलेल्या रोजगारसंधींची कल्पना सहजगत्या येऊ शकते.

कौशल्य विकास-आव्हान आणि संधी

अशा प्रकारे सौरऊर्जा क्षेत्राच्या विकासातून रोजगारांसह





स्वयंरोजगाराच्या संधी मोठ्या प्रमाणावर उपलब्ध होणार असल्या तरी त्यासाठी सौरऊर्जा या नव्याने विकसित क्षेत्रासाठी आवश्यक अशा विविध स्तरांवरील कौशल्यांची मोठ्या प्रमाणावर गरज निर्माण झाली आहे. सद्यस्थितीत देशांतर्गत विद्यार्थी-युवकांपैकी केवळ दहा टक्के उमेदवारांना सौरऊर्जा विषयातील औपचारिक प्रशिक्षण प्राप्त होते, हे यासंदर्भात उल्लेखनीय आहे. या एकाच मुद्द्यावरून सौरऊर्जा क्षेत्रातील कौशल्यविषयक प्रशिक्षणाची आवश्यकता स्पष्ट होते. हरितऊर्जा विकासासह सौरऊर्जा क्षेत्रातील कौशल्य विकासाच्या वाढत्या गरजा व या कौशल्य पात्रतेतील तफावत यांवर परिणामकारक उपाययोजना म्हणून शासनातर्फे खालीलप्रमाणे प्रमुख उपक्रम प्राधान्यक्रमाने हाती घेतले आहेत.

स्किल काऊन्सिल फॉर ग्रीन जॉब्ज

या योजनेअंतर्गत सौरऊर्जा तंत्रज्ञान व हाताळणी, उपकरणांची जुळणी व मांडणी, पवनऊर्जा तंत्रज्ञान व माहिती व जैविक ऊर्जा तंत्रज्ञान यांसारख्या विषयांचे प्रशिक्षण दिले जाते.

ग्रीन स्किल डेव्हलपमेंट प्रोग्राम

या विशेष उपक्रमाद्वारे ७० लाख युवा उमेदवारांना हरित ऊर्जा अभियानांतर्गत पर्यावरण संरक्षण व विकास, वातावरणातील बदल आणि त्यांचे नियोजन, वन विकास व व्यवस्थापन आणि स्थायी विकासाला चालना देणे यांसारख्या विषयांवर प्रशिक्षणाचे आयोजन करून हरित कौशल्य विकासाला चालना दिली जाते.

नॅशनल ग्रीन हायड्रोजन मिशन

हरितऊर्जा क्षेत्राला आवश्यक असणारी बाब म्हणून 'नॅशनल

ग्रीन हायड्रोजन मिशन'तर्फे राष्ट्रीय स्तरावर ऊर्जानिर्मिती क्षेत्रात व वापरासाठी हायड्रोजनचा अधिकाधिक वापर व प्रसार-प्रचार व्हावा यासाठी कार्यरत असते.

विविध शैक्षणिक अभ्यासक्रम

हरितऊर्जा क्षेत्राच्या नव्या गरजा व वाढती मागणी लक्षात घेता, खालीलप्रमाणे शैक्षणिक उपक्रम हाती घेण्यात आले आहेत.

सौरऊर्जा क्षेत्रातील तंत्रज्ञानाचा परिचय आणि सराव:

२४० तासांच्या या सौरऊर्जा कौशल्य परिचय व विकास या विशेष अभ्यासक्रमासाठी उमेदवार बारावी उत्तीर्ण असणे आवश्यक आहे.

टाकाऊ पदार्थांवरील प्रक्रिया व्यवस्थापन:

घनकचरा व जैविक कचऱ्यावरील प्रक्रिया व व्यवस्थापन प्लास्टिक कचरा, ई-कचरा, बांधकाम प्रक्रियेतील कचऱ्याचे व्यवस्थापन या विषयांवरील ३०० तासांच्या या विशेष अभ्यासक्रमासाठी उमेदवारांनी विज्ञान विषयातील पदवीधर असणे आवश्यक आहे.

कृषी व स्थायी विकास पद्धतीवरील अभ्यासक्रम:

मधमाशा पालन व मध संकलन, लाख उत्पादन व प्रक्रिया, रेशीम उत्पादन इत्यादी कृषी क्षेत्राची निगडित व स्थायी विकासाला पूरक ठरणाऱ्या विषयांवर आधारित ४०० तासांच्या विशेष अभ्यासक्रमासाठी उमेदवार शालांत परीक्षा उत्तीर्ण असावेत.

विशेष उत्पादनांची विक्री-व्यवस्थापन:

बांबू, जंगली गवत, नारळाच्या करवंट्या इत्यादींपासून बनविलेल्या उत्पादनांच्या विक्रीच्या माध्यमातून स्थायी विकासासह ग्रामीण अर्थव्यवस्थेला चालना देणाऱ्या या २०० तासांच्या मार्गदर्शनपर अभ्यासक्रमासाठी अर्जदारांनी बारावी उत्तीर्ण असणे आवश्यक आहे.

वातावरणीय बदलांचे व्यवस्थापन:

वातावरणात होणाऱ्या बदलांचे निदान व निराकरण करून त्याद्वारे स्थायी विकास साधण्यासाठी फायदेशीर ठरणाऱ्या १०५ तासांच्या या विशेष प्रशिक्षण अभ्यासक्रमासाठी उमेदवार कुठल्याही विषयातील पदवीधर असायला हवेत. वरील अभ्यासक्रमांशिवाय ङ्गग्रीन स्किल डेव्हलपमेंट प्रोग्रामफ या विशेष प्रशिक्षण उपक्रमांद्वारे सौरऊर्जेच्या माध्यमातून हरितऊर्जा अभियानाद्वारे खालील विशेष प्रशिक्षण अभ्यासक्रमांचे आयोजन केले जाते.

हरित व सौरऊर्जा क्षेत्र:

सौरऊर्जानिर्मिती केंद्र निर्माण, सौरऊर्जा उपकरण उत्पादन, सौर तंत्रज्ञान साहाय्यक सौरऊर्जा पारेषण, जमीन सर्वेक्षण व अहवाल, सौर संयंत्र देखभाल व दुरुस्ती. **पवनऊर्जा :** पवन ऊर्जाविषयक उपकरणांची निर्मिती, देखभाल व दुरुस्ती.

जैविक इंधन: जैविक इंधननिर्मिती व जैविक वायू उत्पादन.

हरित व शाश्वत बांधकाम क्षेत्र: शाश्वत विकासाला पूरक अशा स्थापत्यशास्त्र व बांधकामनिर्मिती.

कचरा प्रक्रिया व पुनरोपयोग: घनकचरा, नागरी कचरा, जैविक कचरा, इलेक्ट्रॉनिक कचरा, मल निस्सारणासह प्रक्रियायुक्त पाणी इत्यादींवर प्रक्रिया करून त्याद्वारे पर्यावरणपूरक ऊर्जानिर्मितीचे प्रकल्प व्यवस्थापन. याशिवाय सौरऊर्जेसह पर्यावरणपूरक ऊर्जानिर्मितीद्वारा शाश्वत विकासाला चालना देण्यासाठी या क्षेत्रातील विषयतज्ज्ञ व संशोधकांद्वारा विविध विषयातील प्रशिक्षण, सल्ला-मार्गदर्शन, नवागत वा नव्याने शिक्षण घेतलेल्या उमेदवारांना सौरऊर्जा विषयातील उमेदवारी प्रशिक्षण, विविध स्तरांवर प्रत्यक्ष कामाचा सराव इत्यादी विविध प्रकारे सौरऊर्जा क्षेत्राशी संबंधित शिक्षण-प्रशिक्षण व कौशल्य विकासाला चालना देणारे नवे उपक्रम नव्या पिढीसाठी लाभदायी ठरणारे आहेत.

दत्तात्रम आंबुलकर - सौजन्य : मुंबई तरूण भारत (लेखक एचआर व्यवस्थापक व सल्लागार आहेत.) ९८२२८४७८८६



9 Nos. brand **New APFC** (Harmonic Filter) panels as under are available for immediate sale.

- 1) 370 KVAR 2 Nos.
- 2) 440 KVAR 1 No.
- 3) 700 KVAR 3 Nos.
- 4) 800 KVAR 2 Nos.
- 5) 1000 KVAR 1 No.



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इकॅम संचालक श्री मारुती माळी यांच्या

्रिवम इंजिनिअर्स चे सैप्य महोत्सवी वर्ष











आपले सर्वांचे प्रेम, सहकार्य, आशिर्वादने शिवम इंजिनिअर्स २५वे रौप्य महोत्सव वर्ष साजरे करत आहे. या निमित्ताने गुरुवार दि. १ मे २०२५ रोजी उषा पॅलेस पुणे येथे संपूर्ण शिवम ग्रुप टिम करिता परिवार सहीत स्नेह मेळावा आयोजित केला होता. शिवम ग्रपच्या स्थापने पासून आजपर्यंत सहकार्य लाभलेले सर्व सहकारी मित्र उपस्थित होते. शिवम ग्रुपचे सीए, सीएस, पिएफ आणि ईएसआय सल्लागार यांचे प्रमुख उपस्थितीत हा सोहळा संपन्न झाला. आजपर्यंत लाभलेले सहकार्य बद्दल शिवम ग्रुपचे सर्वेसर्वा श्री मारुती माळी सर व आधारस्तंभ सौ मनिषा माळी यांनी मनोमन कौतुक केले आणि सर्वांचे आभार मानले. या कार्यक्रमाचे निवेदन महेश माळी यांनी केले आणि आभार प्रदर्शन मंगेश माळी यांनी केले. शिवम रौप्यमहोत्सव सहपरिवार कार्यक्रम आनंदाने पार पडला. पुढील वाटचालीस मान्यवरांनी आणि उपस्थितांनी श्भेच्छा दिल्या.

'अवादा एनर्जी' कडून ४०० मेगावॉट वीजखरेदीला आयोगाची मंजुरी

राज्य सरकारी महावितरण कंपनी अदानी समूहापेक्षा नऊ पैसे प्रति युनिट महाग दराने सौर ऊर्जा खरेदी करणार आहे. याअंतर्गत 'अवादा एनर्जी कंपनी'कडून ४०० मेगावॉट वीज २.७९ रुपये प्रति युनिट दराने खरेदी करण्याला महाराष्ट्र वीज नियामक आयोगाने मजुरी दिली आहे.

देशभरातील वीजवितरण कंपन्यांनी अधिकाधिक हरित ऊर्जा (बिगर प्रदुषणकारी) खरेदी करण्याला प्राधान्य द्यावे, असा केंद्रीय वीज मंत्रालयाचा आग्रह आहे. एकूण खरेदीच्या किमान ३२ टक्के वीज ही नूतनीय ऊर्जा (पवन व सौर) स्रोतांमधील असावी, अशी अट आहे. यासाठीच महावितरणने गेल्या वर्षी ५ हजार मेगावॉट सौर ऊर्जा २.७० रुपये प्रति युनिट दराने अदानी समूहाकडून खरेदी करण्याचा करार केला. आता 'अवादा एनर्जी कंपनी'कडून त्याहन महाग दराने ४०० मेगावॉट वीजखरेदी होणार आहे.

याअंतर्गत २.७९ रुपये प्रति युनिट दराने सौर ऊर्जा खरेदी केली जाणार आहे. हा दर देशभरात अलिकडे झालेल्या सौर ऊर्जा खरेदीच्या तुलनेत ४३ पैसे अधिक असल्याचेही यासंबंधी आयोगाकडील याचिकेत समोर आले आहे. त्याचवेळी महावितरणला २०२३-२४ साठी ४.८१ रुपये प्रति युनिट वीजखरेदी

खर्च मंजूर करण्यात आला आहे. त्याचा दाखला महावितरणने याचिकेत दिला होता. त्याआधारेच २.७९ रुपये प्रति युनिट दराने २५ वर्षांसाठी सौर ऊर्जा खरेदी कराराला आयोगाने महावितरणला मंजुरी दिली.

महावितरणची सध्याची वार्षिक सरासरी वीजखरेदी २४ हजार मेगावॉटदरम्यान आहे. त्या तुलनेत नूतनीय उर्जेचा हिस्सा सरासरी ३० टक्के व सौर ऊर्जेचा वाटा १२ ते १५ टक्के अपेक्षित आहे. मात्र कंपनी २०९५ मेगावॉट सौर ऊर्जा करारच करू शकली आहे. त्यामुळेच चालू आर्थिक वर्षात ९६०५ मेगावॉट सौर ऊर्जा खरेदीचे लक्ष्य असन त्यामध्येच या ४०० मेगावॉट विजेचा समावेश असेल. मात्र ती वीज काहिशा महागड्या दराने खरेदी केली जात आहे.

महावितरणने पवन, सौर, जैव, लघु जल, पवन-सौर संमिश्र, टाकाऊ पदार्थांपासून अशा सर्व नूतनीय ऊर्जास्रोतांमधून २८ हजार १६५ मेगावॉट वीजखरेदीचे करार केले आहेत. मात्र त्यातील फक्त ९ हजार ८५९ मेगावॉट (३४ टक्के) वीज तयार होण्याची क्षमता असून त्यातील निम्मी वीजही सध्या उपलब्ध नसल्याने महावितरणने अधिकाधिक नूतनीय व हरित ऊर्जेसाठी प्रयत्न सुरू केले आहेत.







MECO Transformer Turns Ratio Meter, Model TTR 8100

MECO Transformer Turns Ratio Meter (Model TTR 8100) is a Portable Instruments for accurate measurement of 1-Phase & 3-Phase Transformer VT / CT Turns Ratio, Excitation voltage, Current, Phase

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 - **PC Application Software**
- MECO Model TTR 8100 available with accessories, One Pair of Test





Approach to Protecting Transformer Neutrals

The neutral terminal should be protected by an arrester with characteristics selected according to the system conditions and the withstand voltage of the neutral. Two kinds of arresters are used: the same design as for the arresters used at phase-to-ground but with reduced MCOV; or special arresters for this purpose with reduced protection levels.

In selecting an arrester for protection of a neutral terminal, its TOV capability is particularly applicable because TOV requirements become a more defining factor than MCOV. This is because the neutral arrester has a small (typically less than a few percent of phase voltage) continuous operating voltage in well-grounded systems, except during switching events and ground faults. It is important to consider both the duration and the magnitude of the TOV when selecting the arrester. The overvoltage at the neutral is equal to system zerosequence voltage during faults involving ground. Calculations using the method of symmetrical components are straightforward.

If the transformer power source is switched with a single-phase device or protected by fuses, voltage at the ungrounded neutral can become equal to system phase-to-neutral voltage for an extended period. This condition occurs when one fuse or switch remains closed while the other two remain open. Since the neutral voltage for this condition will generally be higher and of longer duration than the TOV due to ground faults, this should be taken into account whenever selecting the TOV rating for the neutral arrester.

The energy classification of the neutral-to-ground arrester should not be lower than that of the phase-toground arresters on the same wye winding of the transformer. The electrical characteristics of the neutral-to-ground arrester will then be the same as those of standard catalog arresters of corresponding MCOV.

Care must be taken to use the BSL of the transformer neutral (not always as great as transformer winding BSL) when determining required arrester protective level. A protective ratio PRS = BSL (neutral)/SPL of 1.15 or greater is required, where SPL is the discharge voltage (usually at 1 kA for determining this protective ratio) or the gap sparkover voltage. When calculating protective ratios of the phase windings, it is important to note that each phase-toground arrester is in series with the neutral-to-ground arrester across the terminals of each transformer phase winding, as illustrated in Fig. 5. This is of particular importance when considering the case of surge impulses of opposite polarity between the phase and neutral terminals of the transformer. Therefore, when calculating protective margins as described above, the two arresters' protective levels should be added and the sum used to determine the protective level across the phase winding.

When the transformer neutral is fully insulated to the same level as the wye-connected windings, protection can be achieved using arresters having a protection level equal to or lower than that of the phase-to-ground arresters. Due to the lower power frequency voltage between neutral and ground, the MCOV of the neutral arrester can be rated lower. Since the voltage between neutral and ground is zero in an ideally balanced system and less than a few percent in a typical well-grounded system, the MCOV of an arrester in the neutral point could be set nominally to zero. However, it does need to have a ratingwith adequate TOV capability. For the purpose of general selection, it is recommended to choose an arrester with an MCOV of at least 60% that necessary for the phase-to-ground arresters on the winding where the neutral point arrester is to be applied, assuming relatively long fault duration. Very short or very long fault durations may warrant selecting a different value, after taking specific TOV requirements into account.

Solex Energy secures Rs 4.51 billion solar module supply order from KPI Green Energy

Reportedly, Solex Energy has secured a solar module supply order worth Rs 4.51 billion from KPI Green Energy Limited for its Gujarat Urja Vikas Nigam Limited (GUVNL) solar projects, which form part of KPI Green's independent power producer portfolio.

Under the agreement, Solex Energy will supply 310 MW of N-Type TOPCon 615 Wp glass-to-glass solar photovoltaic modules. Deliveries are scheduled to commence from September 2025.





Cable laying is a critical process that requires careful planning and execution to ensure safe and reliable transmission of electrical power or communication signals. Here are some guidelines for cable laying:

Pre-Laying Preparations

- 1. Route Planning: Plan the cable route to avoid obstacles, minimize bends, and ensure easy maintenance
- 2. Cable Selection: Choose the right type and size of cable for the application, considering factors like voltage, current, and environmental conditions.
- 3. Trenching or Drilling: Prepare the trench or drill holes for cable laying, ensuring sufficient depth and clearance.

Cable Laying

- 1. Cable Handling: Handle cables with care to avoid damage, kinking, or twisting.
- 2. Cable Laying: Lay cables in the trench or conduit, ensuring they are not twisted, bent, or pinched.
- 3. Cable Spacing: Maintain adequate spacing between cables to prevent overheating and electromagnetic interference.
- 4. Cable Markers: Use cable markers to identify cables and facilitate future maintenance.

Cable Protection

- 1. Conduits or Ducts: Use conduits or ducts to protect cables from mechanical damage, moisture, and environmental factors.
- 2. Cable Ties: Use cable ties to secure cables to supports or
 - 3. Cable Protection Materials: Use materials like sand.

gravel, or warning tapes to protect cables from damage.

Testing and Inspection

- 1. Visual Inspection: Inspect cables for damage, kinking, or other defects.
- 2. Electrical Testing: Perform electrical tests, such as insulation resistance and continuity tests, to ensure cable integrity.
- 3. Cable Certification: Obtain certification for cables, if required, to ensure compliance with industry standards.

Safety Precautions

- 1. Personal Protective Equipment: Wear personal protective equipment, such as gloves and safety glasses, when handling
- 2. Safety Procedures: Follow safety procedures, such as lockout/tagout, when working with electrical cables.
- 3. Environmental Considerations: Consider environmental factors, such as weather conditions, when laying cables.

Industry Standards and Regulations

- 1. National Electric Code (NEC): Follow NEC guidelines for cable laying and electrical installations.
- 2. Local Regulations: Comply with local regulations and standards for cable laying and electrical installations.
- 3. Industry Best Practices: Follow industry best practices for cable laying and electrical installations.

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Ministry of Power holds meeting on roadmap for development of nuclear power generation

The Consultative Committee of the Ministry of Power held a meeting on "Roadmap for Development of Nuclear Power Generation."

The Union Minister for Power and Housing & Urban Affairs noted that apart from electricity generation, nuclear energy could support non-electric applications such as hydrogen production, desalination, process steam, and space heating. The key steps for scaling up nuclear power, including amending existing laws to enable broader sector participation, strengthening public awareness on

nuclear safety, facilitating land acquisition through brownfield expansions, streamlining regulatory approvals, and introducing tax concessions and longterm financing to ensure competitive tariffs.

Further, the need to diversify technology choices through competitive bidding, promote indigenous manufacturing under Make in India, secure diversified uranium fuel sources, expand the vendor base for nuclear equipment, and build skilled manpower through enhanced nuclear education and training infrastructure was also emphaised.

Reliance Industries commissions solar PV module manufacturing line

Reliance Industries Limited has commissioned its first solar photovoltaic (PV) module manufacturing line and is advancing work on battery storage production facilities.

The manufacturing facility is located at a 5,000-acre site in Jamnagar, Gujarat, where RIL is establishing giga factories to produce PV modules, batteries, hydrogen electrolysers, and fuel cells. This development forms part of a USD10 billion renewable

energy, storage, and hydrogen plan announced in 2021, aimed at achieving the company's net zero emissions goal by 2035.

The initial manufacturing capacity has reportedly been set at 10 GW per annum, with further expansion capabilities to 20 GW. Additionally, the company is also focusing on developing 30 GWh of battery manufacturing, with an initial modular capacity of 20 GWh.

EdgePoint Towers deploys first solar hybrid site in Malaysia

EdgePoint Towers, a subsidiary of EdgePoint Infrastructure, has launched its first solar hybrid telecom site in Malaysia as part of its renewable energy initiative. The 5.9 kWp site operates autonomously with solar energy and battery storage, aiming to provide up to 100 per cent of the energy needed for telecom operations and significantly reduce diesel dependency.

The deployment will enhance sustainability, cost efficiency, and connectivity, particularly in remote transport corridors. The initiative is expected to cut the site's annual carbon emissions by around 78 per cent, with further solar and hybrid site rollouts planned across Malaysia by the end of 2025.

MNRE launches green hydrogen certification scheme

The Ministry of New and Renewable Energy (MNRE) has launched the green hydrogen certification scheme.

The MNRE emphasised the government's commitment to building a self-reliant green hydrogen ecosystem by 2030. The MNRE also noted that micro,

small and medium enterprises will serve as the backbone of India's energy transition, contributing through their agility, innovation, and regional presence. The certification scheme aims to bring clarity and credibility to India's green hydrogen production and trading ecosystem.



Solar Workshop by Vashi Integrated Solutions for Ecam









Vashi Integrated Solutions is very active in supporting electrical contractors doing the business of solar installations. It has a special division to handle all the inquiries of Solar requirements. They have created ready kits to install the rooftop solar installations as per the PM Saur Shakti Muft Bijlee Yojana. This scheme is a big business for the electrical contractors. Hence a workshop was organised in the head office of the company on 18 April 2025. 45 members of Mumbai attended the workshop and gained invaluable experience, information on the subject. Similar workshops are under planning for every region of Ecam. A bus was booked for members to attend the workshop. Dinner was provided by the company. All attendees were very happy for the knowledge sharing and hand holding by the Vashi Integrated Solutions.







Chaos in Spain and Portugal as Millions Left without Electricity

A nationwide power outage has left millions without electricity in Spain and Portugal. The outage has caused widespread disruptions, including the shutdown of traffic lights and chaos at airports, train stations and on the roads. According to media reports, the Spanish power distributor says restoring power to large parts of the country after a huge outage could take six to 10 hours.

The Spanish government has convened for an emergency session at the president's office and is

closely monitoring the situation.

The cause remains unclear, but reports suggest issues with the European electric grid. Spain's two major electric companies, Endesa and Iberdrola, are investigating the incident.

With internet access down, many people turned to radio for updates. Some residents took to the streets, holding their smartphones in the air in an attempt to connect to a network.



CEA notifies draft CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2025

The Central Electricity Authority (CEA) has notified the draft CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) (1st Amendment) Regulations, 2025. As per the draft amendment, a key revision includes the updated right of way (RoW) requirements for various voltage levels ranging from 66 kV to 1200 kV and high voltage direct current (HVDC) systems up to ±800 kV. The amendment provides separate RoW norms for different terrains including normal routes, forest areas, urban/populated areas, and substation approach sections, across both lattice and pole tower structures using conventional and high-performance conductors such as CFCC, ACSS, and GAP. The RoW specifications are based on design spans, conductor types, and string configurations, and take into account safety parameters such as minimum live metal clearance, ground clearance, corona loss, electromagnetic field exposure limits, and audible noise. The amendment also mandates compliance with the CEA (Measures Relating to Safety and Electric Supply) Regulations, 2023 and the guidelines for rationalised use of high-performance conductors.

Avaada Group signs MoU with Maharashtra government to develop 3,650 MW PSP

Reportedly, Avaada Group has signed a memorandum of understanding (MoU) with the Water Resources Department, Government of Maharashtra, to set up two pumped storage projects (PSP) with a total capacity of 3,650 MW.

As part of the agreement, the two projects – the 2,400 MW Pawana Falyan and the 1,200 MW Sirsala –

will be developed with a cumulative investment of Rs 151 billion. The pumped storage facilities will play a vital role in enhancing Maharashtra's energy security by providing round-the-clock renewable power, supporting grid balancing operations, and enabling the smooth integration of clean energy into the state's electricity mix.

CERC passes suo motu order in the matter of revised trading and contract design for power markets

The Central Electricity Regulatory Commission (CERC) has passed a suo motu order titled CERC (Power Market) (Revised Trading and Contract Design) Order, 2025, under the CERC (Power Market) Regulations, 2021, to standardise short-term electricity contracts and improve efficiency in power trading across exchanges.

In the day ahead contingency segment, exchanges must now use a uniform price step auction mechanism instead of continuous matching, enhancing transparency and preventing price manipulation. For the term ahead market (TAM), all custom and overlapping time slots, including those under Green TAM and High Price TAM, are to be discontinued, with exchanges reverting to standard hourly blocks to consolidate liquidity. Further, in assured delivery based contracts, requisitions must follow defined bidding and acceptance windows with a clear separation between bidding and execution stages. Duplicate bids across exchanges will no longer be permitted. The exchanges have also been directed to immediately discontinue all "dynamic" intra-day and DAC contracts, which CERC found to be non-standard and liquidity-fragmenting. In addition, all power exchanges are now required to publish both the number and volume of buy and sell bids for TAM and contingency contracts on their websites, not just the traded volumes.



CERC notifies the draft Deviation Settlement Mechanism and Related Matters (Second Amendment) Regulations, 2025

The Central Electricity Regulatory Commission (CERC) has notified the draft Deviation Settlement Mechanism and Related Matters (Second Amendment) Regulations, 2025.

The draft amendment proposes to allow limited commercial payment for infirm power injected by thermal generating stations before the successful completion of trial runs. The payment will be made for power injected between first-time synchronisation and completion of the trial run, at the normal rate of

charges for deviation, subject to a ceiling of Rs 2.86 per kWh—based on the mean energy charges for FY 2023-24 as per the CERC Annual Report. Further, the amendment stipulates that no payment will be made for any injection of infirm power (either before trial run completion or after, if scheduled) when the system frequency exceeds 50.05 Hz. These changes are aimed at refining the treatment of infirm power while maintaining grid discipline and system frequency stability.

ACME Solar commissions first phase of 52.5 MW at 300 MW solar project in Rajasthan

ACME Solar Holdings Limited has commissioned the first 52.5 MW phase of its 300 MW solar power project located in Bikaner, Rajasthan. The project is connected to the Bikaner-II grid via a dedicated 220 Ky transmission line. The project is financed by Power Finance Corporation Limited and is anticipated to generate around 780 million units of clean electricity annually once fully commissioned. The generated power will be sold on power exchanges on a merchant basis.





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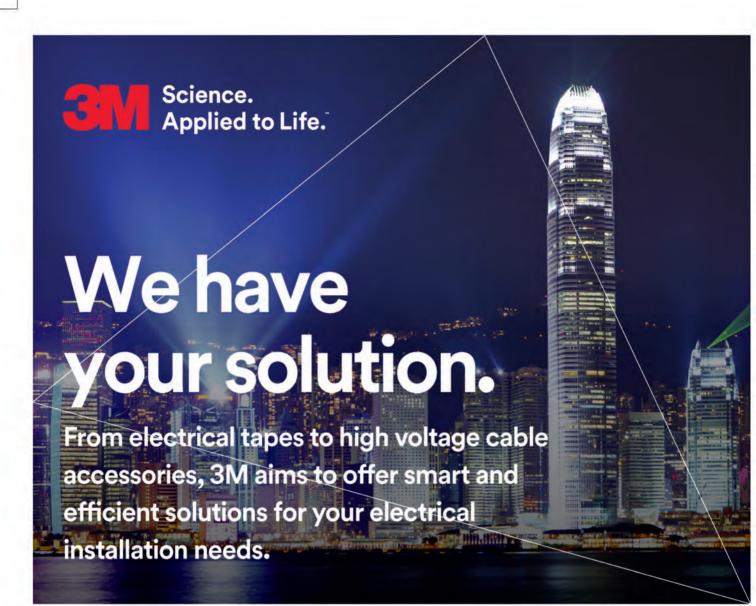
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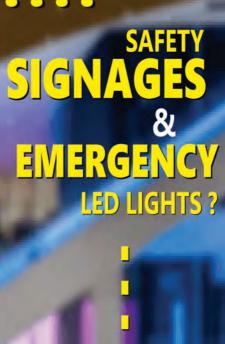


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