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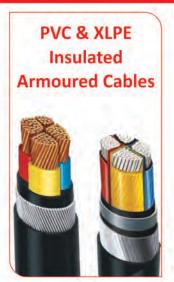
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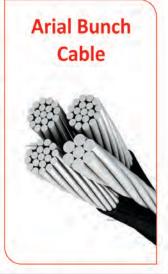












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# अध्यक्षांच्या कलमातून....



वामन गोदाबाई भगवान भुरे अध्यक्ष, इकॅम

नमस्कार मित्रांनो,

IECT या आपल्या मासिकामधील अध्यक्षीय कलमातुन या सदरखाली वेगवेगळ्या विषयावर सभासदांना नवनवीन माहिती व्हावी. याचा प्रयत्न करीत असतो जुलै महिण्याच्या अंकातून आपण एम एस एम ई (MSME) बाबत थोडसं मांडण्याचा प्रयत्न. मराठा चेंबर ऑफ कॉमर्स अँड इंडस्टीज (MCCIA) या नामांकित संस्थेच्या सहकार्याने संघटनेच्या सभासदांसाठी राज्यातील सर्व विभागात MSME ची माहिती मिळावी या हेतूने चर्चा सत्राचे आयोजन करीत करीत आहोत. यातून सभासदांना व्यवसाय वाढ, आर्थिक उपलब्धता या करिता कसा उपयोग करता येईल याची माहिती देण्याचा आपला प्रयत्न आहे.

भारताच्या एकूण GDP मध्ये MSME चे फार मोठे योगदान आहे आणि येत्या काही वर्षांत हे योगदान ५०% पर्यंत वाढवण्याचे सरकारचे उद्दिष्ट आहे.

MSME हे सूक्ष्म, लघु आणि मध्यम उद्योगांचे संक्षिप्त रूप आहे. २००६ च्या सूक्ष्म, लघु आणि मध्यम उद्योग विकास कायद्यानुसार, MSME दोन श्रेणींमध्ये विभागले गेले आहेत. उत्पादन उद्योग ते आहेत जे कोणत्याही



# सदस्यंनो, MSME योजनांचा लाभ घ्या!

उद्योगात वस्तूंचे उत्पादन किंवा उत्पादन करतात. भारतात सूक्ष्म उपक्रमांमध्ये छोटी दुकाने, रस्त्यावरील विक्रेते आणि घरातील व्यवसाय यांचा समावेश होतो. लघु उद्योगांमध्ये उत्पादक, शैक्षणिक संस्था आणि रेस्टॉरंट्स यांचा समावेश होतो; तर मध्यम उद्योगांमध्ये उत्पादन प्रकल्प, रुग्णालये, बांधकाम कंपन्या आणि घाऊक विक्रेते समाविष्ट आहेत.

भारताच्या अर्थव्यवस्थेला आकार देण्यासाठी सूक्ष्म, लघु आणि मध्यम आकाराचे उद्योग (MSMEs) महत्त्वपूर्ण भूमिका बजावतात. ते नोकरीच्या संधी उपलब्ध करून देऊन देशाच्या कमी विकसित आणि ग्रामीण भागात सुधारणा करण्यास मदत करतात. सरकारच्या वार्षिक अहवालानुसार सहा दशलक्षाहून अधिक लहान आणि मध्यम आकाराचे उद्योग (SMEs) भारतात कार्यरत आहेत.

भारतात एकूण ६३३.९ लाख एमएसएमई आहेत. भारतात, एकूण MSME पैकी ९९% पेक्षा जास्त ६३०.५ लाख एंटरप्राइझ बनवणारे सूक्ष्म-उद्योग म्हणून पात्र आहेत. MSME कर्ज व्यक्ती, स्टार्टअप्स, स्वयंरोजगार व्यावसायिक, उद्योजक, व्यवसाय मालक, सूक्ष्म-लघु आणि मध्यम उद्योग (MSME), एकमेव मालकी, खाजगी आणि सार्वजनिक मर्यादित कंपन्या, भागीदारी फर्म, मर्यादित दायित्व भागीदारी (LLPs) इत्यादीद्वारे मिळू शकतात. प्राधान्य क्षेत्र म्हणजे ते क्षेत्र ज्यांना भारत सरकार आणि भारतीय रिझर्व्ह बँक देशाच्या मूलभूत गरजांच्या विकासासाठी महत्त्वपूर्ण मानतात आणि त्यांना इतर क्षेत्रांपेक्षा प्राधान्य दिले जाते पुरेशा आणि वेळेवर कर्ज देऊन अशा क्षेत्रांच्या वाढीस प्रोत्साहन देणे बँकांना बंधनकारक आहे.

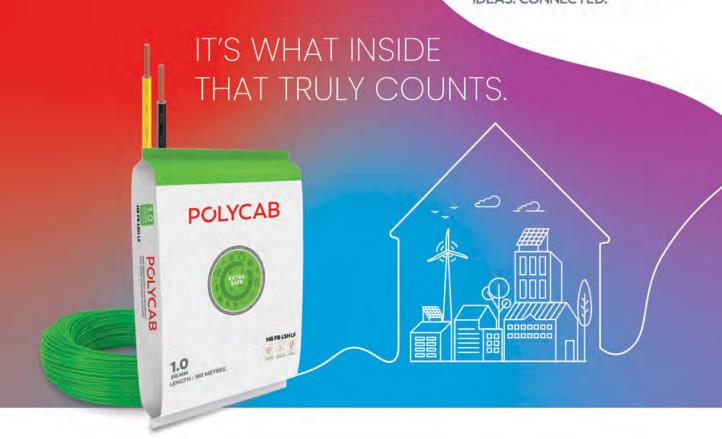
कोणतीही व्यक्ती एमएसएमई नोंदणीसाठी अर्ज करू शकत नाही. ५० कोटी रुपयांपेक्षा कमी गुंतवणूक असलेली आणि वार्षिक उलाढाल रु. २५० कोटींपेक्षा कमी असलेली मालकी, भागीदारी फर्म, कंपनी, ट्रस्ट किंवा सोसायटी MSME नोंदणीसाठी पात्र आहेत.

सूक्ष्म, लघु व मध्यम उपक्रम विकास अधिनियम-२००६ अस्तित्वात येण्यापूर्वी, केंद्र शासनाच्या विकास आयुक्त (लघु उद्योग), नवी दिल्ली यांनी वेळोवेळी निर्देशित केलेल्या स्थायी आदेशानुसार व सुलभ कार्यपध्दतीच्या धोरणानुसार उद्योग संचालनालयाकडून लघु उद्योग घटकांना लघु उद्योग नोंदणी देण्यात येत होते.

केंद्र शासनाने नवीन सुक्ष्म, लघु व मध्यम उपक्रम विकास अधिनियम-२००६ ची अंमलबजावणी करण्याचे आदेश पारीत केल्याने, महाराष्ट्र शासनाने या संदर्भात दिनांक २७ ऑक्टोबर २००६ च्या अधिसूचनेद्वारे या कायद्याची अंमलबजावणी सुरू केली आहे. नवीन कायद्यानुसार सूक्ष्म, लघु व मध्यम उद्योगांना आता 'उद्योग' ऐवजी ङ्गउपक्रमङ्घ असे संबोधण्यात येत आहे. उत्पादन करणाऱ्या व सेवा पुरविणाऱ्या उपक्रमाचे प्रत्येकी तीन प्रकार विहित केलेले आहेत.

शेष वृत्त पान ४८ वर





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### महासचिवांच्या कलमातून.....





# विद्युत सुरक्षिततेसाठी एकात्मिक उपाय

नमस्कार मित्रांनो,

दिनांक १८.०५.२०२४ रोजी इकॅम कोकण विभागातर्फे मे तेलवणे पॉवर इकिपमेंट प्रा. लि., नवी मुंबई येथे कारखान्याला भेट देण्यात आली. या भेटीमध्ये त्यांच्या प्रतिनिधींकडून ट्रान्सफॉर्मर्सच्या कच्च्या मालापासून ते अंतिम चाचणी पर्यंतची उत्पादन प्रक्रिया सभासदांना दाखविण्यात आली याप्रसंगी सभासदांनी उस्फुर्तपणे सहभाग दर्शविला. या भेटीच्या आयोजनासाठी चेअरमन श्री उल्हास वजरे, व्हाईस चेअरमन श्री. विठठल झवेरी तसेच सचिव श्री वसंत गद्रे यांनी मेहनत घेतली.

दिनांक ७ जुन २०२४ रोजी आपल्या नगर विभागाच्या श्री अमीत गरूड आणि श्री. अमोल कोळपकर या सदस्यांनी DOP महावितरण श्री भादेकर साहेव यांची भेट घेऊन त्यांना निवेदन दिले. यात ५ LOE संदर्भात चर्चा विनिमय करण्यात आला सदरवाबत मागण्या मान्य करण्यात आल्या आहेत. आता प्रत्येक Activity साठी HT 5, LT 5, NSC 5, Transformer Repairing 5, DTC 5 असे प्रत्येकी 5 LOE मिळणार आहेत. या संदर्भातील परिपत्रक येत्या ३ ते ४ दिवसात सर्कल ऑफिसला पोहोचेल असे सांगण्यात आले आहे.

दिनांक ७ जुन २०२४ रोजी वोरीवली येथे मराठा चेंबर्स ऑफ कॉमर्स इंडस्ट्रिज ऑण्ड ॲग्रीकल्चर आणि इकॅम यांच्या संयुक्त विद्यमाने Raising and Accelerating MSME Productivity (RAMP) या विषयावर कार्यशाळा आयोजित करण्यात आली होती. यात श्री अनिरूध्द ब्रम्हा, श्री मानस जोशी आणि त्यांच्या टीमकडून GeM Portal, MSME व GST च्या असणाऱ्या योजना या विषयांवावत सविस्तर माहिती देण्यात आली. या कार्यशाळेला मुंबईतील सभासदांनी उस्फुर्त प्रतिसाद दिला. मराठा चेंबर्स ऑफ कॉमर्स इंडस्ट्रिज ऑण्ड ॲग्रीकल्चर आणि इकॅम यांच्या संयुक्त विद्यमाने दिनांक १३ जुन २०२४ रोजी अहमदनगर, दिनांक १४ जुन २०२४ रोजी जळगाव, दिनांक १५ जुन २०२४ रोजी पुणे येथे GeM Portal, MSME व GST या विषयावर कार्यशाळा आयोजित करण्यात आल्या. तसेच दिनांक २६ जुन २०२४ रोजी नाशिक, दिनांक २८ जुन २०२४ रोजी धुळे नंदुरबार तसेच दिनांक ३० जुन २०२४ रोजी पश्चिम महाराष्ट्र येथे GeM Portal, MSME व GST च्या असणाऱ्या योजना या विषयावर कार्यशाळा आयोजित करण्यात येणार आहे.

दिनांक ४ जुलै २०२४ रोजी इकॅम, आय ई.सी.टी आणि नॅशनल सेफ्टी कौंसिल (National Safety Council) यांच्या संयुक्त विद्यमाने विद्युत सुरक्षिततेसाठी एकात्मिक उपाय (Integrated Solutions for Electrical Safety) या विषयावर सेमिनार आयोजित करण्यात आला आहे. सर्व सभासदांना विनंती करण्यात येते की सदर सेमिनार यशस्वी करण्यासाठी आपण जास्तीत जास्त संख्येने उपस्थित रहावे .

नवे आर्थिक वर्ष २०२४-२०२५ सुरू झाले आहे तरी सर्व सभासदांनी आपल्या नवीन आर्थिक वर्षाची सभासद वर्गणी मागील थकीत वर्गणीसह इकॅम कार्यालयात जमा करावी ही विनंती.

सभासदांची यादी अद्ययावत करण्याचा आमचा प्रयत्न अविरतपणे चालू आहे. सभासदांचे बरचसे पत्ते बदलले आहेत. ज्या सभासदांचा पत्ता, दुरध्वनी कमांक तसेच ईमेल आय डी बदलला असेल तर त्यांनी तो त्वरीत इकॅम मुख्य कार्यालयाला कळवावा .

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#### The Editor's Desk



# **Congratulations Tata Power**

World Bank energy report has recognised the contributions by Tata Power in DER, distributed energy resources and P2P, Peer to Peer, electricity trading. This has reduced energy costs for consumers and also made significant contributions to environmental sustainability.

By using Blockchain technology it has allowed the "prosumers" who produce and consume energy, to trade their surplus solar power with other consumers.

One more point has to be considered in this context that the innovative tariff systems of Tata Power and the integration of rooftop solar systems enable customers to manage their energy needs efficiently while promoting the adoption of solar energy.

Further to say that this unique model supports the





customers in reducing their energy costs and contribute to greener environment. The recognition by World Bank Energy Report has reinforced the position of Tata Power as a leader in the energy sector, committed to driving the transition to sustainable energy and empowering communities through advanced utility services.

Hence Tata Power has to be congratulated by every enlightened citizen, especially people in the power sector.

Today we are witnessing a boom in the renewable energy sector. Solar and Hydrogen energy are the talks of the town today. In case of Hydrogen, people are exploring the potential of green hydrogen as a versatile energy carrier. National and international giant companies are unveiling the latest advancements in hydrogen production, storage and utilisation. People are discussing and debating regarding the economy of hydrogen energy, talking about cost parity, demand, off take structures and low cost financing. In addition, experts are discussing the impact on our eco system. They are considering the regulatory framework and collaborative efforts among industries, research institutions and policymakers.

Recently, IEEMA had organised a new Energy Conclave, where all such points were discussed. We are sure that our readers will take keen interest in these issues of development.

#### **Good news about Tata Power**

World Bank energy report has recognised the contributions by Tata Power in DER, distributed energy resources and P2P, Peer to Peer, electricity trading. This has reduced energy costs for consumers and also made significant contributions to environmental sustainability. By using Blockchain technology it has allowed the "prosumers" who produce and consume energy, to trade their surplus solar power with other consumers.

Congratulations!

## Satish Sinnarkar

Editor, IECT







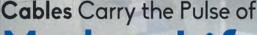












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# **DIGITAL TWIN**

### By Ajit N. Kulkarni

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#### **Preface**

In an era where digital transformation is happening in all fields, the concept of the digital twin emerges as a radical change in entire system having great future potential. A digital twin in simple term can be said as virtual replica of any physical object, system, or process. Additionally, there is synergy between the physical and virtual replica. Hence many advantages such as improvement in efficiency, productivity, and sustainability can be obtained. There are lot of applications with this new technology and will be placing profound impact in future.

#### Usage in Electrical industry

Digital twins can be used in various aspects of electrical systems such as for motors, power distribution, load flow analysis, grid management and many more. In all these applications, digital twins get the real time data from sensors, meters, and other monitoring devices from electrical physical assets and systems. By analyzing this data and simulating different scenarios, digital twins enable operators to optimize performance, likely failures, improve reliability, maintenance scheduling and reduce operational costs in the electrical appliances and system. Given below few cases in which same can be used.

Credit- https://www.istockphoto.com/photos/digital-twin-power



- Motors- Digital twins of motors enable real time monitoring of operating conditions such as temperature, vibration, and load. Sensors attached to the motor collect real-time data on various parameters such as temperature, vibration, speed, and torque. This data is transmitted to the digital twin via IoT or other communication protocols. The digital twin uses this data to update its virtual model, simulating the motor's current state and performance. Al algorithms within the digital twin analyze the data to detect anomalies, predict potential failures, and optimize performance. Insights and recommendations are sent back to the
- physical motor, allowing for adjustments in operation, maintenance schedules, or alerting operators to take preventive measures. Due to this lifespan, efficiency of the motors gets extended.
- 2) Power Distribution- Digital twins of power distribution systems simulate the behavior of distribution networks, including transformers, switchgear, and feeder lines. These digital replicas enable operators to optimize voltage levels, balance loads, and detect potential issues such as overloads, voltage fluctuations etc. Sensors and smart meters within the power distribution network gather data



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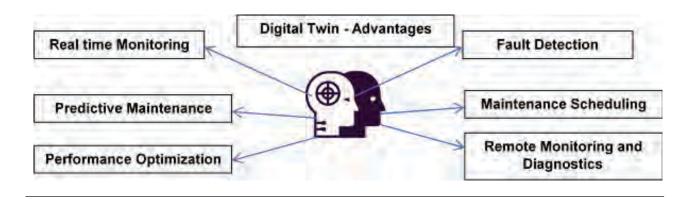




on voltage, current, load, and other electrical parameters. This data is relayed to the digital twin. The digital twin models of the entire distribution network, updating it with the latest data to reflect current conditions. The digital twin analyzes the data to optimize load distribution, detect faults, and predict maintenance needs. Based on the analysis, the digital twin provides control commands or recommendations to the physical distribution network to enhance reliability and efficiency.

- Load Flow Analysis- Digital twins are used to perform load flow analysis, which involves calculating the flow of electrical power through a network under various operating conditions. By simulating different scenarios, digital twins help to optimize power flow, ensure grid stability, and identify potential congestion or voltage problems. Data on power flows, generation, consumption, and network topology is collected from sensors and smart grid devices. This information is sent to the digital twin. The digital twin updates its load flow model to simulate current conditions and predict future states under various scenarios. The digital twin performs load flow analysis to identify potential bottlenecks, optimize power flows, and ensure voltage stability. Recommendations or control actions are communicated back to the physical grid to balance load and improve efficiency.
- 4) Grid Management- Digital twins of electrical grids provide utilities with a comprehensive

- understanding of demand patterns, system dynamics etc. This allows operators to make informed decisions regarding grid operation, maintenance scheduling, renewable energy integration, and emergency response. The grid's sensors and monitoring devices collect data on power generation, distribution, consumption, and grid health indicators. This data is continuously transmitted to the digital twin. The digital twin maintains an up to date virtual model of the entire grid, incorporating data and analyzes grid performance, predict faults. The digital twin provides actions, control commands, or automated adjustments to the physical grid to enhance stability, optimize performance, and improve resilience.
- Renewable energy Systems- Digital twins of solar PV systems or Windfarms are replicated in a virtual environment. These digital replicas integrate real time data on solar irradiance, temperature, power output, panel health, wind speed, wind direction, blade rotation, vibration, temperature, and power output from sensors installed in the actual system. This data is transmitted to the digital twin. The digital twin uses this data to update its model as per current status. The digital twin analyzes the data to predict energy output, identify performance issues, and optimize orientation and cleaning schedules. Then digital twin recommends or automated control actions to adjust settings, schedule maintenance, alerts or optimize power generation, enhancing efficiency and reducing downtime.



#### **Advantages**

Real time Monitoring- Digital twins

continuously monitor the operating conditions of industrial machinery in real time. They collect data on variables such as temperature, vibration, pressure, and energy



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consumption to assess the health and performance of the equipment. Hence feedback given is of that time.

- Fault Detection- By analyzing the data collected from sensors, digital twins can detect anomalies or deviations from normal operating conditions. These variances may indicate potential issues such as wear and tear, component degradation, or impending failures in the machinery.
- Predictive Maintenance- Digital twins use ML algorithms and predictive analytics to forecast maintenance needs for industrial equipment. They analyze patterns in the data to predict when maintenance tasks such as lubrication, part replacement, or adjustments are likely to be required.
- Maintenance Scheduling- Based on the predictions generated by the digital twin, maintenance tasks can be scheduled proactively during planned downtime periods. This minimizes unplanned outages, reduces the risk of costly breakdowns, and extends the lifespan of the equipment.
- Performance Optimization- Digital twins help optimize the performance of industrial machinery by identifying opportunities for efficiency improvements and process optimization. By simulating different operating scenarios, operators can fine tune parameters to maximize productivity while minimizing energy consumption and waste.
- Remote Monitoring and Diagnostics-Digital twins provide a platform for remote monitoring and diagnostics of industrial equipment. Operators can access present data, receive alerts on potential issues, and diagnose problems remotely, allowing for timely interventions and troubleshooting.

In short digital twins enable to optimize performance, improve reliability, and reduce operational costs in the electrical industry.

#### Integration with Al

Integration of AI with digital twins can enhance their capabilities. There will be new possibilities for optimizing performance, predicting outcomes, and enabling autonomous decision making. Some of the examples can be- Analytics, Projections, Optimization, Control, Personalization, Independent Decision, Continuous Learning etc.

Overall, integrating AI with digital twins enhances ability to analyze, predict, optimize, and adapt in complex and dynamic environments. This enables organizations to achieve new levels of efficiency, innovation, and value creation across various domains.

#### Inference

In conclusion, the importance of digital twins is going to increase in present rapidly evolving technological landscape. By bridging the physical and digital worlds, digital twins empower organizations across various industries to gain deeper insights, optimize performance, and make data-driven decisions. Whether it's enhancing operational efficiency, predicting maintenance needs, improving product design, or personalizing patient care, digital twins offer unprecedented capabilities to innovate, adapt, and thrive in an increasingly complex and interconnected world. As technology continues to advance digital twins will be great tool for achieving better objectives. By usage of digital twins, organizations will unlock new opportunities, overcome challenges, and stay ahead in the digital age.

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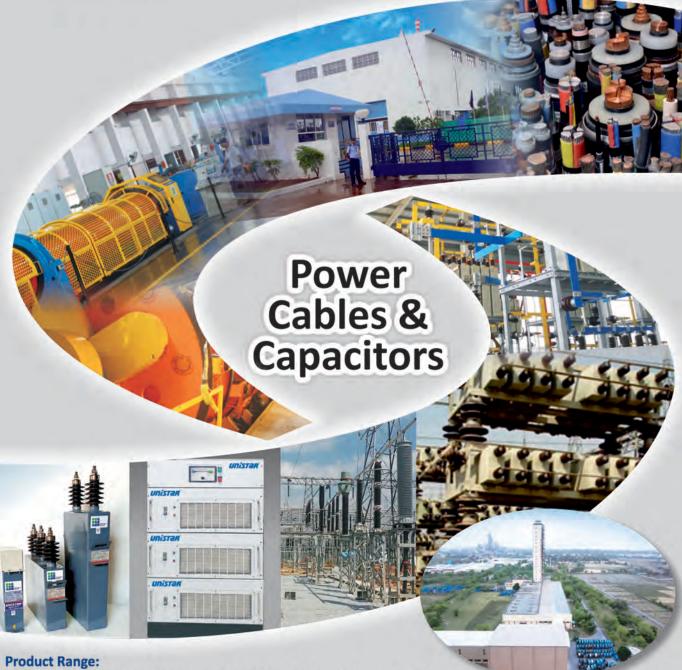




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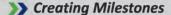
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# **Role of Accessories in Wires & Cables**



Accessories play a crucial role in the context of wires and cables, primarily focusing on their installation, protection, and performance enhancement. Here are some key roles of accessories in relation to wires and cables:

Installation Support: Accessories such as cable glands, cable ties, and connectors facilitate the proper installation of wires and cables. Cable glands, for instance, provide a sealed entry point into electrical equipment, ensuring that cables are securely held and protected against environmental factors like dust and moisture.

Protection and Durability: Accessories like heat shrink tubing, conduit pipes, and cable trays protect wires and cables from mechanical damage, moisture, abrasion, and chemicals. Heat shrink tubing, when applied correctly, provides insulation and strain relief, prolonging the life of cables in harsh environments.

Performance Enhancement: Certain accessories are designed to improve the electrical performance of wires and cables. For example, cable terminations and joints ensure efficient electrical connectivity, reducing losses and ensuring reliable transmission of power or signals over long distances.

Safety Compliance: Accessories can help in achieving safety standards and

compliance with regulations. For instance, cable markers and labels aid in identifying cables, which is essential for maintenance and troubleshooting in large installations.

Aesthetic Considerations: In architectural or interior design applications, cable management accessories like raceways and floor cord covers contribute to a neat and organized appearance, enhancing the overall aesthetics of a space.

Adaptability and Flexibility: Accessories such as adapters







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and couplers allow for flexibility in configuring cable systems, adapting to changes in equipment layout or requirements without the need for extensive rewiring.

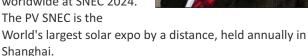
Repair and Maintenance: In the event of damage or faults, accessories such as splice kits and repair tapes provide quick solutions for repairing cables, minimizing downtime and maintaining operational continuity.

In summary, accessories are essential components that complement wires and cables, ensuring their proper installation, protection, performance, and compliance with safety standards. They contribute significantly to the overall efficiency, reliability, and longevity of electrical and communication systems.



# Waaree Energies Founder Hitesh Doshi Recognized as Global Solar Leader at SNEC 2024

Mr. Hitesh Doshi, Whose name has been synonymous not only with the firm he founded, but also the Indian solar sector, has been awarded the Global Solar Leaders Award (2024) for his outstanding contributions to solar industrial progress worldwide at SNEC 2024.



Under Doshi, Waaree Energies Limited, has emerged as India's largest manufacturer of solar PV modules with an aggregate installed capacity of 12 GW as of June 30, 2023 (Source: CRISIL Report). The award was presented to Doshi at the SNEC 17th International Photovoltaic Power Generation and Smart Energy Exhibition & Conference, held in Shanghai, China, from June 13-15, 2024.

Reflecting on this momentous recognition, Hitesh Chimanlal Doshi, now Chairman and Managing Director, Waaree Energies Limited, remarked, "I am deeply



humbled to have been bestowed with this recognition. It is always a good feeling when one's efforts are recognized, as it motivates a person to keep walking the path no matter how demanding it might seem. Receiving this award is not just a personal accolade but also a tribute to Waaree Energies Limited's pursuit of excellence and innovation. This honour is an acknowledgement to the collective efforts of the entire Waaree family and I believe that it is a testament to the Indian solar industry's rising prominence on the global map. It inspires us to continue scaling new heights and shaping a sustainable future driven by renewable energy solutions."

Waaree Energies Limited ("WEL") was founded in 1990. WEL commenced operations in 2007 focusing on solar PV module manufacturing with an aim to provide quality, cost-effective sustainable energy solutions across markets, and aid in reducing carbon foot-print paving the way for sustainable energy thereby improving quality of life. WEL has four solar module manufacturing facilities in India, with international presence. The company has a growing solar EPC business group firm Waaree Renewable Technologies Limited, and Waaree Energies has also filed for an IPO sometime this year possibly.





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# Electrocution fatalities: Over 30 people die every day in India, NCRB data shows

The event allegedly happened during the "Ulto Rath" procession, which marks the Hindu god Jagannath and his two siblings' "return" journey following the yearly Rath Yatra festival, according to the police. Iron was used to construct the chariot, which had elaborate decorations. Six people were instantly killed when it made contact with an overhead electric wire and an electrical surge.

Recently, a 17-year-old boy was electrocuted to death on Sunday morning in southeast Delhi's Taimoor Nagar about an hour before a 35-year-old woman died in the same manner at the New Delhi railway station

Speaking to WION, the Division Head BSES (O&M), Ajit Singh Kadian, shed some light on these regular incidents, "There are a number of agencies involved in such incidents, particularly the MCD and PWD. We must keep a check on the leakage issues, the iron poles, the power lines etc, we should do it and we do it."

On being asked about the authorities responsible, Kadian added, "Waterlogging is a big issue in Delhi, proper maintenance should be done. MCD and PWD should properly look after this issue and ensure that electric poles are not left behind immersed in water, which are active and may cause fatal cases like these. There are several unauthorised colonies and buildings which have hanging and loose wires, there is not enough space to place a proper transformer, hence due to lack of land way this issue creates more danger."

Sakshi, a 35-year-old mother of two and a teacher, was electrocuted outside the New Delhi Railway Station (NDLS) three days prior to her family's departure on vacation. According to reports, she was electrocuted while holding onto an electric pole for support in a soggy section of the parking lot of the railroad station.

The danger of loose wires is once again brought to light by the fatalities. A significant risk to both life and property exists because of these high-voltage lines. Unfavourable situations, such as electrocution in the midst of torrential rain and flooding, are especially common during the monsoon. The problem is still unresolved despite repeated petitions from the general public and yearly accidents.

In the last decade, 34 people died of electrocution per day As per the NCRB data, in the last decade (2011 - 2020), about 100,000 people lost their lives due to electrocution. It reflects that nearly 11,000 electrocution

deaths happen every year, this number rose to 12,492 in 2022.

This equates to 34 fatalities daily on average. According to news agency ANI, when the police arrived on the scene, they found that the street was flooded after a significant downpour. The agency received confirmation from the police officers that the catastrophe was caused by the water that had accumulated becoming an electrical conductor.

A 30-year-old guy died of electrocution the same day Sakshi passed away in Pune's Kondhwa after coming into contact with a wire fence in a residential community while seeking shelter from the rain.

Following the occurrence, BSES issued a warning advising people to take steps to prevent any mishaps. The advisory is as follows:

- Stay away from electrical installations like electricity poles, substations, transformers, streetlights, etc.
- Caution children from playing near electricity installations, even if they are barricaded. Advise them not to play in parks that are waterlogged.
- Get the entire wiring in your premises thoroughly checked and tested by the Licensed Electrical Contractor.
- Put off the main switch in case there is water logging or leakage observed in the meter cabin. Put on the main switch only after ensuring that all faults have been rectified properly.
- Install an Earth Leakage Circuit Breaker (ELCB) to help avoid shocks and mishaps.
- Keep a "Tester" at home. If a switch is wet, do not touch it. First, use a "Tester" to check if there is an electricity leakage. If need be, call your electrician.
- Power theft by hooking can be a serious safety hazard, especially during the monsoon months.
- In case of an emergency or a power disruption, consumers can reach BSES through- BRPL: 19123, BYPL: 19122. In order to solve issues brought on by the monsoon, BSES has put in place a number of measures, such as adequate fencing around transformers that are located on poles and plinths, the deployment of quick-reaction teams to handle emergencies, and the creation of war rooms to quickly assess complaints and identify answers.

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# अग्निसुरक्षेलाच झळा

# डोंबिवली एमआयडीसीतील ६०० कंपन्यांच्या परिसराची सुरक्षा वाऱ्यावर



डोंबिवली एमआयडीसीमध्ये रासायनिक आणि इलेक्ट्रॉनिक्स अशा ६०० कंपन्या आहेत. या कंपन्यांच्या सुरक्षेची जबाबदारी असलेली एमआयडीसी मात्र निद्रिस्तच आहे. एमआयडीसीमध्ये वारंवार होणारे स्फोट, आगींसारख्या भीषण दुर्घटनेचा सामना करण्यासाठी या उद्योजकांना जवळपासच्या पालिकेच्या अग्निशमनकडेच हात पसरावे लागत आहेत. मागील ६० वर्षांपासून स्थापन झालेल्या आणि बफर झोनमध्ये रहिवासी संकुले शाळांना पायघड्या घालणाऱ्या एमआयडीसीला या उद्योगाच्या सुरक्षेसाठी डोंबिवलीत स्वतःचे अग्निशमन केंद्र स्थापन करता आलेले नाही. त्यामुळे येथील दुर्घटनेच्या झळा तीव्र होत आहेत.

कल्याण-डोंबिवली महापालिका क्षेत्रात होणाऱ्या दुर्घटनेमध्ये तातडीने मदत मिळावी, यासाठी प्रशासनाचे अग्निशमन केंद्र कार्यरत आहेत. अद्ययावत अग्निशमन यंत्रणेद्वारे हानी रोखण्याचा प्रयत्न केला जातो.

दुर्घटना मोठी असेल तर ठाणे, भिवंडी, अंबरनाथ, अंबरनाथ एमआयडीसी, नवी मुंबई, रबाळे येथून अग्निशमन विभागाची मदत घेतली जाते. मात्र डोंबिवली एमआयडीसीकडून कंपन्याच्या सुरक्षेची व्यवस्था करण्याकडे पूर्णपणे दुर्लक्ष करण्यात आले आहे. महापालिकेच्या अग्निशमन केंद्रासाठी डोंबिवली एमआयडीसी परिसरात जागा देण्यात आली होती. याच अग्निशमनची डोंबिवली एमआयडीसीत मदत घेतली जात होती. मात्र अग्निशमन विभागाची जागा धोकादायक झाल्यानंतर हे केंद्र स्थलांतरित करण्यात आले. तेव्हापासून डोंबिवली एमआयडीसीमध्ये अग्निशमन केंद्र नाही. दुर्घटना घडल्यानंतर केडीएमसी अग्निशमन विभागाची मदत मागितली जाते. मात्र ही मदत मिळण्यासाठी किमान अर्धा तासाहून अधिक कालावधी जातो. यामुळे गोल्डन अवरमध्ये दुर्घटनेवर नियंत्रण मिळवता येत नाही.

वेगाने पसरणाऱ्या आगीवर नियंत्रण मिळवताना अग्निशमन विभागाला प्रचंड कसरत करावी लागते. वास्तविक डोंबिवली एमआयडीसीमध्ये रासायनिक कंपन्या असून या कंपन्याच्या सुरक्षेची जबाबदारी जितकी उद्योजकांची आहे, तितकीच किंबहुना त्याहून जास्त एमआयडीसीची आहे. एमआयडीसीकडून करूपात सुरक्षा शुल्क वसूल केले जाते. त्याबदल्यात सुविधा मात्र दिली जात नाही. मागील आठवड्यात इंडो अमाइन कंपनीला आग लागल्यानंतर अर्ध्या तासाने केडीएमसीचे अग्निशमन बंब दाखल झाले. मात्र तोपर्यंत या आगीने कंपनीला विळख्यात घेतले होते. यानंतर काही वेळाने एमआयडीसीच्या अंबरनाथ केंद्रातून आणि आजूबाजूच्या महापालिकांच्या गाड्या दाखल झाल्या. तेच जर या परिसरात एमआयडीसीचे सुसज्ज अग्निशमन केंद्र असले असते तर तुलनेने कमी हानी झाली

अग्निशमन केंद्र असले असते तर तुलर्नने कमी हानी झाली असती, असे उद्योजकांचे म्हणणे आहे.

एमआयडीसीकडे विचारणा केली असता, अंबरनाथ एमआयडीसीमध्ये सुसज्ज अग्निशमन केंद्र असून ते मध्यवर्ती असल्याने तिथून मदत मिळत असल्याचे अधिकाऱ्यांनी सांगितले. तर डोंबिवली ते अंबरनाथ एमआयडीसी हे अंतर ४५ मिनिटांचे असल्याने हे केंद्र मध्यवर्ती कसे असू शकते, असा उद्योजकांचा प्रश्न आहे.

डोंबिवली एमआयडीसीमध्ये रासायनिक कंपन्याच्या किमान



५०० मीटर परिसरात रहिवासी संकुले, शाळा नसाव्यात, असे नियमात स्पष्टपणे नमूद असतानाही हे नियम धाब्यावर बसवून एमआयडीसीमधील भूखंड रहिवासी संकुल आणि शाळांना देण्यात आल्याने आता हे रहिवासी, शाळा प्रशासन आणि राजकीय लोकप्रतिनिधी वर्षानुवर्षे व्यवसाय करत कामगारांना रोजगार देणाऱ्या कंपन्यांना विस्थापित करण्याच्या मागे आहेत. मात्र कंपन्यांच्या सुरक्षेसह हानी कमी व्हावी यासाठी डोंबिवली एमआयडीसीमध्ये सुसज्ज अग्निशमन केंद्र तयार करण्याचा सोयीस्कर विसर पडल्याचा आरोप उद्योजकांनी केला आहे.



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# **Modi 3.0 Goverment Portfolio**

# Khattar Charged with Power, Puri retains Oil and Gas, Joshi gets MNRE



ML Khattar and Joshi replace RK Singh, the outgoing minister of power and MNRE, who lost in the recently-concluded Lok Sabha elections.

The energy sector ministries saw shades of both continuity and change vis-à-vis the previous government, with Hardeep Singh Puri retaining the petroleum portfolio, while power, renewable energy, and coal ministries getting new ministers at the helm. Former Haryana chief minister Manohar Lal Khattar is the new power minister, while Pralhad Joshi has been entrusted with the Ministry of New and Renewable Energy (MNRE). The coal portfolio has been allocated to G Kishan Reddy.

Khattar and Joshi replace RK Singh, the outgoing minister of power and MNRE, who lost in the recently-concluded Lok Sabha elections. Until a few months ago, Khattar served as Haryana CM, while Joshi handled coal, mines, and parliamentary affairs portfolios at the Centre in the second Modi government. Reddy was heading ministries of tourism, culture, and development of north eastern region.

As for the Ministers of State (MoS) in these ministries, Shripad Yesso Naik will handle power and MNRE, while Suresh Gopi will serve in the petroleum ministry. Satish Chandra Dubey is the new MoS for coal.

At a broad level, accelerating energy transition, striking the delicate and critical balance between fossil fuels and green energy sources, pushing new and future fuels like green hydrogen, raising domestic energy production while cutting costly energy imports, ensuring energy affordability amid global volatility, and spurring private sector investment in various segments are likely to be the themes for these ministries' efforts over the next

few years. Given India's high and rapidly rising energy demand, the work these ministries do is critical to the economy.

The petroleum ministry is expected to push public and private sector companies to increase domestic oil, gas, and fuel production and refining capacity, further expand fuel retail network including charging infrastructure for electric vehicles, while working simultaneously to reduce the sector's carbon footprint. As in the past two terms, expanding the share of natural gas in India's primary energy mix shall continue to be a key focus area of the new NDA government.

Work for the power ministry and MNRE appears to be cut out—setting up extensive energy storage infrastructure, building adequate thermal and nuclear baseload capacity, raising annual renewables capacity, pushing for reforms in the beleaguered power distribution sector, and effectively implement schemes that facilitate and incentivise adoption of clean energy. The coal ministry will be expected to focus on raising India's domestic coal output further to facilitate the country's ever-growing demand for power.

The energy ministries—mainly through the public sector companies under their control—have already been working to rapidly develop a green hydrogen ecosystem in India with a common aim to make the country a global production and export hub for what is seen as a zero-emission fuel with massive potential to change the global energy landscape. The efforts, including pushing for localisation of the equipment supply chain and domestic manufacturing of electrolysers, are expected to only get accelerated over the coming years.







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# "Electricity Safety Week" In Maharashtra

The Safety Week is aimed to outline the provisions of safety regulation with the new technological developments, problems and challenges in implementing the regulation and to ensure the safety of electrical installation and the user of electricity.

Electricity by defaults have been seen as the largest single reason for cause of electrical accidents. The government of Maharashtra has accorded high importance to this area. Unfortunately, due to ignorance/negligence about safe electrical practices, improper and weak installations, undersized and inferior quality of wires result in an increasing number of electrical accidents.

Each year there is a heavy loss of life and damage to property as a result of electrical-related incidents and fires. Many electrical fatalities and injuries that occur each year can be overcome through understanding of safe electrical practices.

The objective of this Safety Week is to create awareness about electrical safety among stakeholders and people, and sensitise them on how to mitigate risks in such situations.

Chief Electrical Inspector to Government of Maharashtra, emphasized for higher safety practices, measures to reduce the electrical accidents and the need for awareness programmes, which is both industry friendly and easily understandable for the common man. Thus, the safety week provides a platform to discuss the key issues related to electrical safety in the State of Maharashtra. It will also help in implementing standards and regulations of electrical infrastructure in Maharashtra.



# Energy tsars call for "stability in policies" to get on with enormous transition to renewables

Australia's energy tsars have sounded a warning on staying the course on the power network's decarbonisation, with sustained investment essential nationwide.

"Doing nothing is not an option," Australian Energy Market Operator chief executive Daniel Westerman told an industry conference in Melbourne on Wednesday.

Most of the decline in the nation's greenhouse gas emissions is projected to come from the electricity sector under the 82 per cent national renewable electricity target.

As coal-fired power plants continue to retire and more wind, solar and big batteries come online, emissions in the electricity sector are projected to decline by more than three-quarters by 2035.

But the coalition has vowed to tear up interim targets, prolong the use of fossil fuel-fired energy generation, and repeal a longstanding nuclear ban to add reactors to the power mix to get to net-zero emissions by 2050.

Mr Westerman, responsible for the operations and planning of Australia's energy systems and markets, said the "least-cost objective" was an important one and the latest Integrated System Plan (ISP), due for release within weeks, should provide confidence.

"The ISP reflects and aligns to federal and state government policies on emissions reductions to make net zero by 2050," he said.

"As coal-fired power stations retire, renewables – connected with transition and distribution, supported by hydro, batteries and gas-fired power generation – is the lowest cost way to supply electricity to homes and businesses," he said.

But he acknowledged the need to build trust in the community so that the plans for rebuilding the power system don't land with a shock.

Damien Nicks, chief executive of Australia's largest electricity generator and biggest emitter AGL, called for "stability in policies so that we can all get behind making billions of dollars of investment in this market."

"We need all stakeholders working together ... this is an enormous transition ... we all need to coordinate to ensure we do this as efficiently as possible," he told Australian Energy Week 2024.

Mr Nicks said customers would drive the energy transition and were already playing a "huge role in the market" with rooftop solar, batteries and the uptake of electric cars.

He said many of their customers were still on gas and it would "take time" to electrify, and the fossil fuel



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also had a place when there was a lack of wind or solar generation.

But households view gas and electricity providers as offering worse value for money and being less trustworthy than supermarkets, according to the latest Energy Consumer Sentiment Survey.

The survey by Energy Consumers Australia canvassed the views of more than 2100 households and 500 small business owners nationwide.

Despite a slight improvement in the past six months, value for money for electricity was lowest for households in NSW (52 per cent) and highest for SA (61 per cent).

Consumer advocate Brendan French said there were substantial savings on bills to be had for consumers who can upgrade their homes, but more and more Australians were experiencing energy stress.

"We want to see people on low incomes and people under financial pressure provided with enough financial supports to make these changes to their homes so they can access those cost savings," he said.

Source: AAP

"We want to see people on low incomes and people under financial pressure provided with enough financial supports to make these changes to their homes so they can access those cost savings," he said



Once completed, Khavda Mega-Power Park will account for over nine percent of India's total renewable energy power production and would become the largest power plant of any kind on the planet.

A monumental Rs 1.63 trillion (15.8 billion Pounds) wind and solar power project, the Khavda Renewable Energy Park, has started its initial contributions to India's national grid. Located in Gujarat, this vast project spans approximately 200 square miles, making it five times larger than Paris and visible from space.

According to a report by the UK-based Daily Express, the Khavda Renewable Energy Park is poised to be a game-changer in the global renewable energy landscape. Upon completion, it will generate enough electricity to power 20 million homes in India, a nation with a population exceeding 1.4 billion. The project is set to account for over nine percent of India's total renewable energy production and will be the largest power plant of any kind on the planet.

Sagar Adani, executive director of Adani Green Energy Limited (AGEL), the company behind the project, emphasized India's crucial role in leading sustainable energy efforts. Adani told CNN, "If India does what China

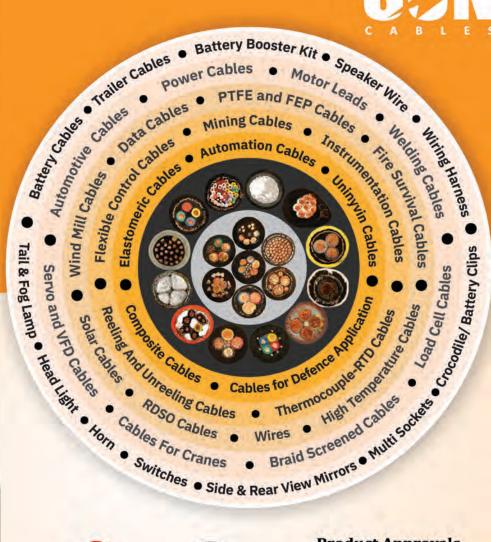
# Gujarat: World's biggest Khavda Mega-Power Park visible from space

did, if India does what Europe did, if India does what the US did, then we are all in for a very, very bleak climatic future." He highlighted the catastrophic impact of adding 800 GW of coal-fired thermal capacity, which would nullify global sustainable energy efforts in terms of carbon emissions.

While acknowledging India's continued reliance on coal, Adani stressed the country's significant progress in renewable energy. Gautam Adani, Sagar's uncle and Asia's second-richest man, confirmed at the company's AGM that this initiative represents the largest hybrid renewables park in the world. "This will be the most complex and ambitious project we have ever executed," said Gautam Adani.

Gautam Adani further detailed the project's scope, stating, "Spread over 72,000 acres, this project will be capable of generating 20 GW of green energy. And we intend to build it faster than any project in our execution history." He also took to social media platform X to express his pride, writing, "Proud to play a crucial role in India's impressive strides in renewable energy as we build the world's largest green energy park. This monumental project, covering 726 sq km in the challenging Rann desert, is visible even from space. We will generate 30GW to power over 20 million homes."

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# **Tackling Heatwaves In Cities**

As Singapore, New York and Melbourne have shown, cities can mitigate the impact of heatwaves if they have the will to create green infrastructure, explain Amit Kapoor & Bibek Debroy.



Tourists cover themselves with scarves to protect themselves from the scorching sun during their visit to the Taj Mahal on a hot summer day, June 25, 2024.

May 2024 has been particularly severe for India, as the country endured one of the harshest heatwaves in recent memory.

Temperatures were reported to be 1.5 degrees Celsius higher than ever recorded.

The climate crisis, exacerbated by El Nino, has pushed temperatures to unbearable levels, resulting in fatalities and highlighting the urgent need for climateresilient and smart solutions across all sectors to prevent more damage.



An ice-cream seller takes a nap on his cart during a hot summer afternoon in New Delhi, June 24, 2024.

As the global urban population grows, more people are exposed to extreme weather conditions, which disproportionately affect vulnerable and marginalised communities.

According to a study conducted by C40 (Cities Climate Leadership Group), a coalition of 96 cities worldwide committed to combating climate risks and implementing urban solutions, over 350 cities are currently at risk of extreme heat conditions, with this number expected to rise to around 970 cities by 2050.

The same study highlights that over 26 million people living in poverty in cities are exposed to extreme heat (roughly over 230 cities).

By 2050, this number will increase to nearly 215 million people (roughly 490 cities).

Additionally, Unicef reports that approximately 560 million children are already exposed to frequent heatwaves, which will increase to 2 billion by 2050.

Such extreme conditions indicate that individuals currently exposed to high temperatures will need to adapt to even more severe heat in the near future, while those living in traditionally cooler areas will experience temperatures that they are not accustomed to.

Therefore, city planners must prepare for these events to ensure that people endure less climatic stress.

Urban planning must adopt a holistic approach that interweaves adaptation with the fundamental necessities of modern living for combating extreme heat.

At the heart of this transformation lies the need for resilient urban infrastructures.

Cities must envision a future where every individual, regardless of their socio-economic status, has access to essential services that enhance daily living and fortify against climate extremes.



Girls cover their heads with a piece of cloth to protect themselves from scorching heat on a hot summer day at Hazratganj Crossing in Lucknow.

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## Successful Workshop By Ecam Mumbai Unit

This workshop was organised by Ecam in association with Mahratta Chamber of Commerce, Industries and Agriculture. It was held at Sun plaza, Borivali West, Mumbai on Friday, 7th June 2024. More than 60 members attended the workshop and were happy to get latest updates on GST and MSME facilities.

Shri Manas Joshi, MCCIA GST committee member conducted the workshop and interacted with the members. The workshop with dinner was sponsored by the Chamber. Both the faculties were felicitated by Shri Mayur Parekh and Shri Satish Sinnarkar.



















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## इकॅम जळगाव विभागातर्फे उपयुक्त सेमिनारचे आयोजन









दि.१४-०६-२०२४. रोजी जळगाव येथे मराठा चेंबर ऑफ कॉमर्स अँड इंडस्ट्रीज या नामांकित संस्थेकडून जळगाव रीजन विभातील संघटनेच्या सर्व सभासदासाठी GEM Portal आणी MSME च्या असणाऱ्या योजना या विषयावर चर्चा सत्र आयोजित करण्यात आले होते. या चर्चा सत्रात GEM शासकीय पोर्टल वरील सेवा संदर्भात अतिशय महत्त्वाची माहिती श्री अनिरुद्ध ब्रह्मा सर यांच्या प्रयत्नातून श्री ऐश्वर्य सोनगिरकर व श्री गुंजन भोजवानी यांच्या कड़न GEM पोर्टल वरील शासकीय सेवा व टेंडर भरणे व त्यातील महत्त्वाची माहिती सर्व ठेकेदार व उद्योजक यांना मिळाली. त्यास चांगला प्रतिसाद जळगाव विभागा कडून मिळाला. साधारण ५० सभासदांनी यामध्ये सक्रिय सहभाग नोंदवला. तसेच पुढील १० ते १५ दिवसा नंतर GST या याविषयावर आणखी एक सेमिनार घेण्याचे निश्चित केले आहे. तसेच कार्यक्रमा शेवटी ECAM कडून MSME व MCCIA यांचे प्रति उपयुक्त माहिती दिल्या बद्दल रीजन तर्फे आभार व्यक्त करण्यात आले.

## इकॅम नगर विभागातर्फे उपयुक्त सेमिनारचे आयोजन

१३.०६.२०२४ रोजी नगर येथे मराठा चेंबर ऑफ कॉमर्स अँड इंडस्टीज या नामांकित संस्थेकडून श्री अनिरुद्ध ब्रह्मा सर यांच्या प्रयत्नाने श्री मानस जोशी सर पुणे आणि त्यांची संपूर्ण टीम यांचे नगर विभागातील संघटनेच्या सर्व सभासदांसाठी GST या विषयावर चर्चा सत्र आयोजित करण्यात आले होते. कार्यक्रमाचे अध्यक्ष स्थान श्री उमेश रेखे (उपाध्यक्ष महाराष्ट राज्य) यांनी स्वीकारले. कार्यक्रमास खूप चांगला प्रतिसाद मिळाला. नगर विभागाचे अध्यक्ष व सर्व संचालक मिळून साधारण ७० ते ८० सभासदांनी यामध्ये सक्रिय सहभाग नोंदवला. हा सर्व कार्यक्रम इकॅम महासमितीचे संचालक श्री नरेंद्र शिंदेकर यांच्या विशेष प्रयत्नातून संपन्न झाला.



तसेच नगर विभागाचे सचिव श्री अर्जून ससे, संघटनेचे मार्गदर्शक माननीय श्री मनोहरजी शहाणे साहेब व सर्व पदाधिकारी यांनी हा कार्यक्रम पार पाडण्यासाठी खूप मेहनत घेतली.

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## **Seminar by Pune ECAM**









On 15th June, we had a very informative seminar on GeM (Government e market place) portal. In coordination with MCCIA. So many doubts were cleared. Main speaker Mr HARISH PAL is very brilliant and devoted to his work.

Thanks MCCIA team. Reg., ANIL MAHAJAN, ECAM, PUNE.

## **Electrical Safety for High Rise Buildings**

In consideration of Electrical safety for High rise buildings there are few points to be done while electrical Installation of the building as below...

- 1) It is not allowed to install the meter Panel at the entrance lobby and below the staircase.
- Minimum wire size should be used FR 1.5 sq.mm. copper flexible. FRLS wire should be used for rising mains.
- 3) Separate duct is mandatory for rising Mains wiring.
- 4) Electrical ducts should be closed by fire retardent shutters
- In Electrical duct concrete barriers should be constructed to avoid spreading of Fire from floor to floor.
- 6) Behind MSEDCL Meters fire retardant material like bakelite sheet should be used.
- 7) All connections of wires and cables should be done properly with Lugs.
- 8) Shuttered plug sockets should be used everywhere.
- 9) There should be sufficient distance between Water taps & electrical accessories.
- 10) In DB wire bunching should be done by using cable ties, & not by Insulation Tape.
- 11) While installing DBs short links should be used.

**Notes**: Wires and cables shall be FRLSLH copper conductor min 1.5 Sq mm for light and fan circuits and min 2.5 Sq for power point upto 3 kW rating, above it, 4.0 Sq mm for AC or geyser. Bakelite sheet catches fire at elevated temperatures, so shall not be used for installing Energy meters. Rather Granite, marble, or fiberglass sheet or cement sheet or any non flammable material shall be used for installing meters. Busbar trunking shall be used for distribution in multistoreyed buildings in stead of cables, which can reduce fire hazards. There should not be any joints in the wiring. Lightning protection system for buildings shall be provided as per IS/IEC 62305 The supplier or owner shall provide at the point of commencement of supply a suitable isolating



device SFU or Breaker, at not more than 1.7 mtr height. Verification of electrical wiring shall be carried out as per IS 732. It's the responsibility of the owner or occupier to maintain the electrical Installation free of electrical shock or fire hazards.





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## विद्युत सुरक्षा - सुरक्षितता

– श्रीकांत साठे

विद्युत सुरक्षितते विषयी हा लेख आपणास वाचायला देताना आम्हाला आनंद होत आहे. मोबाइल फोन पासून एयर कंडीशनर किवा वॉशिंग मशीन, ओव्हन आणि प्रकाश देणारे दिवे हे सर्व काही विजेवर चालते. विजेचा वेग सर्वसाधारणपणे २,७०,००० किलोमीटर प्रती सेकंड इतका आहे. अश्या या अति चपळ वीजेला काबूत ठेवणे म्हणजे कर्म – कठीण काम आहे.

परंतु काही सावधानी बाळगल्यास आपण वीजेकडुन सुरिक्षतपणे काम करून घेऊ शकतो. आपण आपल्या राहत्या घराच्या किंवा कोणत्याही इमारतीच्या जिन्यावरून नेहमीच ये – जा करतो. त्यावेळी जिन्याखाली असलेल्या मिटर बॉक्स च्या केबल कडे दुरूनच पाहून त्यांचा मूळचा रंग म्हणजेच लाल, पिवळा, निळा किंवा काळा हा रंग बदलतोय काय? यावरून त्या केबल जास्त गरम होत आहेत व असेच चालू राहिले तर पुढे आग लागू शकते हे लक्षात घेऊ शकतो. प्रत्यक्ष आपल्याला काही करायचे नसले तरी संबंधित खात्याला आपण हे निदर्शन (Observation) कळवू शकतो.

आपल्या इमारतीच्या आजूबाजूला चेंबर वरील झाकणे असलेले काही बंद सीमेंट कोंक्रिट चे चौथरे असतात. या पैकी काही हे विद्युत वायिरंग मधील अर्थिंग चे पिट असू शकते. तज्ञांना बोलावून किमान दोन वर्षातून एकदा कोरड्या वातावरणात अर्थिंग चे टेस्टिंग करून घ्यावे. फ्रीज, ओव्हन, वॉशिंग मशीन, गिझर, इस्त्री, एयर कंडीशनर इत्यादि उपकरणांना अर्थिंग

जोडलेले आहे याची पक्की खात्री करून घ्यावी. कोणत्याही परिस्थित पाण्याचे पाईप किंवा गॅसचे पाईप यांना अर्थिंगची वायर चुकूनही जोडू नये.

शौचकूप किंवा नहाणी घर (Bathroom) यामध्ये नेहमीसारखा Incandescent; पिवळा प्रकास्श देणारा बल्ब असेल तर त्यावर काचेचे कव्हर जरूर लावून घ्यावे. (Bulk head Fixture).

बाथरूम मध्ये स्नान करताना, विशेषत: शॉवर खाली असताना कोणत्याही विद्युत उपकरणाला / बटणाला हात लावू नये. स्टोरेज टाइप वॉटर हीटर बाथरूम मध्ये लावलेला असल्यास त्याच्या एक्ष्प्लोजन व्हेंट चे तोंड गिझर बसवलेल्या भिंतीच्या बाजूला आहे किंवा नाही ते तपासावे. ते तोंड भिंतीकडे हवे.

घरामद्धे अधिकचे उपकरण लावून चालू करण्या पूर्वी जाणकारांचा सल्ला घ्यावा. ते वायरिंग व अर्थिंग योग्य आहे किंवा नाही हे पाहतील. तसेच लाईव्ह वायर ते नुट्रल, लाईव्ह वायर ते अर्थ आणि नुट्रल ते अर्थिंग यांतील सप्लाय मिटर च्या सहायाने तपासतील.

ओले हात ठेवून विजेची बटणे, उपकरणे हाताळू नयेत. कोणत्याही बटणा मध्ये चूर चूर असा आवाज येत असल्यास ताबडतोब ते बटण व socket बदला. शक्यतो वायिरंग मधील जाइंट टाळा. अगदीच अपिरहार्य असेल तर कनेक्टर लावा. जिमनीपासून १५ सेंटीमिटर उंचीवर प्लग socket असल्यास ते shutter टाइप वापरा. अनावश्यक वीज वापर टाळा.

## वीज कर्मचाऱ्यांना ॲनिमेशनद्वारे सुरक्षा प्रशिक्षण

## टाटा पॉवरतर्फे भांडुपमध्ये देशातील पहिले अनुभव केंद्र

वीजक्षेत्रात सततच्या विद्युत प्रवाहाखाली काम करणाऱ्या कर्मचाऱ्यांना अनेक प्रकारच्या खबरदाऱ्या बाळगाव्या लागतात. त्या न बाळगल्याने बहुतांश वेळा जिवावर बेतते. जिवावर बेतणारे धोके नेमके कुठले व त्यासाठीच्या त्रुटी टाळून काय खबरदारी घ्यायला हवी, याचे कर्मचाऱ्यांना 'फोर डी' व व्हीआर तंत्रज्ञानाच्या आधारे ॲनिमेशन पद्धतीने प्रशिक्षण टाटा पॉवरने सुरू केले आहे. यासाठीचे देशातील एकमेव असे 'अनुभव केंद्र' भांडुप येथे सुरू करण्यात आले आहे. टाटा पॉवरचे पारेषणअंतर्गत भांडुप पश्चिमेकडील सॉलसेट हे वीज आवक केंद्र १९५१ पासून कार्यान्वित आहे. याच ठिकाणी कंपनीने 'फोर डी' व 'व्हीआर' तंत्रज्ञानावर आधारित विशेष प्रशिक्षण केंद्र उभे केले आहे.

या केंद्रात व्हीआरद्वारे (व्हर्चुअल रिॲलिटी) कर्मचाऱ्यांना विविध प्रकारच्या परिस्थितीत वीजक्षेत्राशी संबंधित कामे करण्यासाठीचे आभासी स्वरूपाचे प्रशिक्षण दिले जाते. उदा. एखाद्या ठिकाणी खड्डा खणून तेथे वीज वाहिनी टाकण्यासाठी काय-काय पूर्व तपासण्या करायला हव्यात व त्या न केल्यास कशाप्रकारे अपघात होऊ शकतो, याचा अनुभव दिला जातो. रस्त्यावर खड्डा खणायचा असल्यास विशेष उपकरणाद्वारे (सीएटी टूल) जिमनीखालून अन्य विद्युत किंवा वायू वाहिन्या जात नसल्याची खात्री करणे, आजूबाजूला कठडे लावणे, खड्ड्यांत पावसाचे पाणी साचले असल्यास विद्युत पम्पाने पाणी काढल्यास विजेचा झटका बसू शकतो हे लक्षात घेऊन डिझेल पम्पाचा उपयोग करणे, अशाप्रकारच्या विविध उपाययोजना या केंद्रात कर्मचाऱ्यांना आभासी पद्धतीने प्रत्यक्ष करता येतात. त्याचप्रमाणे विजेच्या मनोऱ्यावर चढून काम करताना काय-काय करायला हवे, याचा स्वतः मनोऱ्यावर चढून प्रत्यक्षपणे संयंत्रावर काम करण्याचा आभासी अनुभव कर्मचाऱ्यांना व्हीआरद्वारे घेता येतो.

याच केंद्राचा दुसरा भाग हा 'फोर डी' आधारित ॲनिमेशन चित्रफितीचा आहे. व्हीआर प्रशिक्षणात शिकल्यानुसार काळजी न घेतल्यास होणाऱ्या अपघातांचा प्रत्यक्ष अनुभव 'फोर डी' मध्ये कर्मचाऱ्यांना दिला जातो. त्यामध्ये आग लागण्यापासून ते पाण्यात पडणे, मनोऱ्यावरून खाली पडणे, विजेचा जोरदार झटका बसणे, हे अनुभव आभासी स्वरूपात दिले जातात. जेणेकरून कर्मचारी १०० टक्के स्रक्षेची खबरदारी बाळगत काम करू शकतात.

## २५० कर्मचाऱ्यांना वर्षातुन एकदा प्रशिक्षण

मुंबईकरांना दररोज कमाल ११०० मेगावॉट वीज पुरविणाऱ्या टाटा पॉवरच्या पारेषण विभागात सध्या २५० कर्मचारी आहेत. या सर्व कर्मचाऱ्यांना टप्प्याटप्प्याने वर्षातून िकमान एकदा हे दोन तासांचे आभासी अनुभवांचे प्रशिक्षण दिले जाणार आहे. 'याद्वारे आमचे अभियंते आणि लाइनमन हे केवळ शिकत नाहीत, तर ते ती परिस्थिती जगतात, आव्हानांचा अंदाज घेतात', असे कंपनीने अध्यक्ष (पारेषण व वितरण) संजय बंगा म्हणाले.



## **Workshop on Raising and Accelerating MSME Productivity** (RAMP) jointly organised by Electrical Contractors' **Association of Maharashtra and Mahratta Chamber** of Commerce, Industries, and Agriculture.

Ministry of Micro, Small and Medium Enterprises, Govt. of India, has recently announced Raising and Accelerating MSME Productivity (RAMP), a transformative Scheme for the MSMEs. The Maharashtra State Small Industries Development Corporation (MSSIDC) has been designated as the implementing agency for the State of Maharashtra. MCCIA's contribution to developing MSMEs spanning nine decades, MSSIDC has decided to join hand without Chamber to organize a Series of Workshops in specific areas relevant to the MSMEs under the RAMP Scheme. These will focus on Self-Assessment & Audit Process Optimization, Vendor Development, Training to MSMEs on GeM, Training To Enhance Financial knowledge of the MSMEs, Capacity Building of MSMEs to digitally submit the Loan Application, Sensitization and Capacity Building of Women & SC/ST led MSMEs and

Entrepreneurs, Facilitating MSMEs on Innovative Logistics Sustainable Packaging Solutions, Skill building of MSME workforce Upskilling and Reskilling in select

We are open to collaborating and conducting training sessions for MSMEs in the following domains:

- 1. Training to MSMEs on GeM
- 2. Enhanced Financial Knowledge for MSMES CIBIL, Credit Hygine, Financial

Discipline GST, GST Sahay, Input Tax Credit, etc.

- 3. Sensitization and capacity building for Women Entrepreneurs Marketing, social media, branding, sustainability etc.
- 4. Sustainability, Digitization and scaling up with audit process optimization.
- 5. Behavioural and Technical Capacity building programme.

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- 9. Customer Service Skills

What We Do



## **Government Issues Compensation Guidelines for Transmission Line**

## Right of Way Compensation is based on the circle rate, guideline value, or Stamp Act rates for land

The Ministry of Power has issued new guidelines addressing the payment of Right of Way (ROW) compensation for transmission lines, including those in urban areas. These guidelines aim to streamline transmission line construction and ensure timely completion by effectively addressing Row issues.

The compensation guidelines apply to transmission lines supported by tower bases with a voltage level of 66 kV and above, excluding sub-transmission and distribution lines below 66 kV.

The District Magistrate, District Collector, or Deputy Commissioner will determine the compensation.

### **Determination of Compensation**

Compensation is based on the circle rate, guideline value, or Stamp Act rates of the land. If the market rate exceeds these values, the land value is determined based on the prevailing market rate, as ascertained by the District Magistrate, District Collector, or Deputy Commissioner. This determined land value serves as the basis for compensation and is communicated by the respective authority.

The compensation for the tower base area is set at 200% of the land value. The tower base area includes the area enclosed by the tower's four legs at ground level, plus an additional one-meter extension on each side.

Compensation for the Row corridor is 30% of the land value. The land within the RoW corridor, defined in Schedule VII of the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022, is eligible for this compensation. This amount addresses the potential reduction in land value due to the presence of overhead lines or underground cables.

No construction activity would be permitted within the Row of the transmission line. States can decide on higher rates depending on the area and urgency of the work. In areas where landowners accept other compensation methods, such as through the states' and union territories' transfer of development rights policy, the licensee or utility must deposit the compensation amount with the relevant corporation, municipality, local development authority, or the state government.

In areas with Row constraints, various technologies can be employed to optimize space usage. These include steel pole structures, narrow-based lattice towers, multicircuit and multi-voltage towers, single-side stringing with lattice or steel poles, cross-linked polyethylene underground cables, gas-insulated lines, compact towers with insulated cross-arms, and voltage source converter-based high-voltage direct current systems.

### **Landowner Identification**

During the check survey at the execution stage, the names of landowners whose property falls within the transmission line's Row are documented. This process adheres to Regulation 8a (B) of the Central Electricity Authority (Technical Standards for Construction of

Electrical Plants and Electric Lines) Regulations, 2022.

Compensation payment is one-time and upfront, with digital payment methods such as the Aadhaar-Enabled Payment System and Unified Payments Interface being preferred.

### **Standard Operating Procedure**

States, union territories, and transmission developers should refer to the following standard operating procedure for detailed guidelines on implementing these compensation measures:

- The Transmission Service Provider (TSP) is responsible for identifying the landowners and issuing the notice to proceed. The TSP will then collect necessary documents from the landowners, such as proof of identity and ownership.
- Revenue officials will verify land records against revenue maps. In cases involving multiple landowners, the TSP must obtain a no- objection certificate from all coowners, which needs to be attested by the sarpanch and the revenue office.
- The TSP will measure the tower footing and corridor area in the presence of landowners, obtaining their signatures along with those of revenue officials. If there are grievances related to land rates, the district magistrate or an authorized magistrate will issue orders to resolve the matter and fix the compensation.
- The TSP is responsible for compensation, which covers tower footing, corridor surface, working area, and access roads. The compensation includes any permanent and temporary structures such as hutments, houses, and line shifting based on the assessment. The measurement sheet must be verified by the project Row lead and countersigned by the landowner and the concerned revenue officials.
- Finally, the TSP will disburse the payment and collect receipts from the landowners, ensuring all transactions are appropriately documented and acknowledged.

States can adopt these guidelines entirely or issue modified guidelines. In the absence of state-specific guidelines, the guidelines issued by the central government will apply.

Disputes over right of way and difficulties in land acquisition are often cited as challenges coming in the way of faster development of renewable energy projects.

Mercom had also reported that achieving India's clean energy goals would be difficult if transmission infrastructure does not keep pace with the rise in connectivity applications due to a surge in renewable energy installations. Stakeholders had said cross-country transmission lines encounter right-of-way issues, among others.

Subscribe to Mercom's real-time Regulatory Updates to ensure you don't miss any critical updates from the renewable industry.**PM Surya Ghar Yojana** 



## Smart Pole 2.0

The concept of smart cities came into being as a consequential development to internet of things (IoT), digital connectivity, global warming and the compelling necessities for energy saving. More than 50 % of the world's population lives in cities, A city environment, with a closely knit street light network became a natural choice for a smart city concept, hosting sensor networks and wireless communications for traffic control, smart parking, noise and air quality monitoring, incident detection, and more. Smart city lights are not stand alone system. They have to be integrated with other systems under what is known as Internet of Things (IoT). Hence the chosen smart city light poles should be able to accommodate a full range of lighting controls compatible to remote control and integral with suitable sensors for the respective application.

In fact, the smart city pole is going to be a service platform for various services for Network redundancy, application areas such as mobile connectivity WLAN), traffic control, security camera (CCTV), information transfer, public announcement with loud speakers, smart parking, environmental monitoring and even the electric charger for electric cars etc.,





K-Lite proudly announces the introduction of smart city poles (Intelligent poles) with its modular solution, to cater to the above needs in the upcoming smart cities with the salient features as below:

Salient Feature of Smart City Pole

One main pole with one to five modules. Smart column is a multitude of combinations. With flexible modules, the smart column is very handy and flexible for add-on. Choose your combination, add the module, connect them together and the smart column is ready to meet your requirement.

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अ. क्र.	उद्योगाचा प्रकार	वर्गवारी	सयंत्र व यंत्रसामुग्रीमधील गुंतवणुक मर्यादा
۶.	उत्पादन		
		सूक्ष्म उपक्रम	सयंत्र व यंत्रसामुग्रीमधील गुंतवणुक ₹ २५ लाखापर्यंत आहे असा उपक्रम
		लघु उपक्रम	सयंत्र व यंत्रसामुग्रीमधील गुंतवणुक ₹ २५ लाखाच्या वर व ₹ ५ कोटी पर्यंत आहे असा उपक्रम
		मध्यम उपक्रम	सयंत्र व यंत्रसामुग्रीमधील गुंतवणुक ₹ ५ कोटीपेक्षा जास्त व ₹ १० कोटीपर्यंत आहे असा उपक्रम
٦.	सेवा		
		सूक्ष्म उपक्रम	उपकरणामधील गुंतवणुक ₹ १० लाखापर्यंत आहे असा उपक्रम
		लघु उपक्रम	उपकरणामधील गुंतवणुक ₹ १० लाखापेक्षा जास्त व ₹ २ कोटीपर्यंत आहे असा उपक्रम
		मध्यम उपक्रम	उपकरणामधील गुंतवणूक ₹ २ कोटी पेक्षा जास्त व ₹ ५ कोटीपर्यंत आहे असा उपक्रम

सदर कायद्याबाबतची व सूक्ष्म, लघु व मध्यम उपक्रमांना उद्योग आधार ज्ञापन स्विकृती बाबतची अधिक माहिती केंद्रशासनाच्या www.dcmsme.gov.in या संकेतस्थळावर उपलब्ध आहे.

सूक्ष्म, लघु व मध्यम विकास अधिनियम २००६ नुसार जिल्हा उद्योग केंद्रामार्फत नियोजित उपक्रमांना ईएम भाग १ व उत्पादनात गेलेल्या / सेवा पूरिवत असलेल्या उपक्रमांना ईएम भाग २ स्विकृती पत्र देण्यात येत होते. तथापि, सूक्ष्म, लघु व मध्यम उपक्रमांची नोंदणी सुलभ होण्यासाठी सूक्ष्म, लघु व मध्यम उपक्रमांची नोंदणी सुलभ होण्यासाठी सूक्ष्म, लघु व मध्यम उपक्रम मंत्रालय, केंद्र शासन यांनी दि. १८.०९.२०१५ च्या अधिसूचने अन्वये एक पानी उद्योग आधार ज्ञापन पध्दती अंमलात आणली आहे. या नवीन पध्दतीनुसार, ईएम भाग १ व २ ऐवजी उद्योजक केंद्र शासनाच्या

htpp://udyogaadhaar.gov.in या पोर्टलवर उद्योग आधार ज्ञापन ऑनलाईन पध्दतीने दाखल करू शकतात.

## थकीत / विलंब देणी वसूलीबाबत सहाय्य:

सूक्ष्म, लघु व मध्यम विकास अधिनियम २००६ च्या कलम २१, पोटकलम (३) द्वारे प्रदान करण्यात आलेल्या अधिकारांचा आणि याबाबतीत त्यास समर्थ करणाऱ्या इतर सर्व अधिकारांचा वापर करुन महाराष्ट्र शासनाने राज्यातील ६ महसूली विभागांसाठी सूक्ष्म व लघु उपक्रमाने दुसऱ्या घटकास विक्री केलेल्या वस्तुंच्या / पूरविलेल्या सेवेच्या थकीत देय रकमेच्या वसूलीसाठी संबंधित विभागाच्या उद्योग सह संचालक यांचे अध्यक्षतेखाली राज्यात एकूण ७ सूक्ष्म व लघु उपक्रम सुकरता परिषदेची स्थापना करण्यात आली आहे.

सदरह परिषदेची रचना खालीलप्रमाणे आहे:

- १. संबंधित विभागाचे उद्योग सह संचालक अध्यक्ष
- २. संबंधित विभागातील दोन औद्योगिकसंघटनांचे २ प्रतिनिधी - सदस्य
- ३. संबंधित महसूली क्षेत्रातील उपक्रमांना वित्त पुरवठा
   करणाऱ्या एका अग्रणी बँकेचा क्षेत्रिय किंवा विभागीय व्यवस्थापक
   सदस्य
- ४. संबंधित विभागीय उद्योग सह संचालक कार्यालयातील उद्योग उप संचालक - सदस्य सचिव

सदर अधिनियमान्वये केंद्र शासनाने सुक्ष्म, लघु व मध्यम उपक्रमांना प्रोत्साहित करणे व विकास साधणे, सदर उपक्रामांची निकोप वाढ होणे कामी आणि अनुषंगिक व आकस्मित प्रकरणी सुविधा उपलब्ध करून देणेत आलेल्या आहेत. सदर अधिनियमाच्या कलम १८ (१) अन्वये सुक्ष्म व लघु उपक्रमांना देय असलेली प्रदाने / विलंब देणी (Outstanding dues) थकीत झाल्यास सदर बाबत सुकरता परिषदेकडे याचिका दाखल करता येते. एकदा याचिका दाखल झाल्यानंतर संबंधित सुकरता परिषद संबंधीत पुरवठादार सूक्ष्म / लघु उपक्रमास त्यांना देय असलेली थिकत देणी बाबत संबंधीत अधिनियम / कायदे / नियम अंतर्गत कायदेशीर प्रक्रिया पूर्ण करून अर्धन्यायिक संस्थेच्या अधिकार कक्षेत निवाडा / निर्णय देण्यात येतो.

केंद्र आणि राज्य सरकार यांच्या माध्यमातून व्यवसाईकांच्यासाठी MSME कडुन अनेक योजणा उपलब्ध आहेत. गरज आहे याचा लाभ घेणारांची.

वामन भुरे, अध्यक्ष,

इलेक्ट्रिकल कॉन्ट्रॅक्टर असोसिएशन ऑफ महाराष्ट्र राज्य





## रोज २,३०० बसचे चार्जिंग टाटा पॉवरची सात शहरांत ८५० चार्जिंग केंद्रे

मुंबई: दररोज सात शहरांमध्ये दोन हजार ३०० ई-बसगाड्यांचे चार्जिंग होत आहे. त्यासाठी टाटा पॉवर कंपनीने ८५० चार्जिंग पॉइंट उभारले आहेत. यामध्ये मुंबईतील चार्जिंग पॉइंटची संख्या मोठी आहे. जलदगतीने चार्जिंग करणाऱ्या या केंद्रांवर पाच तासांच्या ऐवजी दीड तासातच बसचे चार्जिंग केले जात आहे.

टाटा पॉवरकडन वीजनिर्मितीपासन ते वीजवितरणापर्यंत विविध सेवा दिल्या जातात. कंपनीकडून मुंबईतील सुमारे साडे सात लाख ग्राहकांना दररोज सरासरी ९०० मेगावॉट वीजपुरवठा होतो. या पार्श्वभूमीवर, कंपनीने ई-वाहनांच्या चार्जिंगसाठी पुढाकार घेतला आहे. त्यासाठी देशभर चार्जिंगचे जाळे विणले जात आहे. याअंतर्गतच सार्वजनिक वाहतुकीच्या बसगाड्यांसाठी चार्जिंगचे जाळे कंपनीने उभे केले आहे. त्यामध्येच मुंबईचाही समावेश आहे.

सन २०३० पर्यंत देशातील सार्वजनिक वाहतुकीची १०० टक्के वाहने व एकुण चारचाकीपैकी ४० टक्के वाहने विद्युत बॅटरीवर आधारित असावीत, असे केंद्र सरकारचे धोरण आहे. या धोरणाला अनुसरून वीज क्षेत्रातील कंपन्यांकडून ई-वाहनांसाठी चार्जिंग सुविधांची उभारणी सुरू आहे. यामध्येच टाटा पाँवर कंपनीने मुंबईसह

जलद चार्जिंगची सुविधा

कुठलीही ई-द्चाकी ही किमान आठ ते १० किलोव्हॉट क्षमतेच्या बॅटरीची असते. त्या दुचाकीला चार्ज होण्यासाठी अर्ध्या तासाचा कालावधी लागतो. तर चारचाकी ही साधारण ३० किलोव्हॉट क्षमतेची असते, तिला पूर्ण चार्ज होण्यासाठी साधारण दीड तास लागतो. लहान बसगाड्या ५० किलोव्हॉट बॅटरीच्या, तर काही बसगाड्या १०० किलोव्हॉट क्षमतेच्या असतात आणि त्यांना जवळपास तीन तासांचा अवधी चार्जिंगसाठी लागतो. सार्वजनिक वाहतुकीच्या मोठ्या प्रवासी ई-बसगाड्या मात्र १८० ते २०० किलोव्हॉट बॅटरी क्षमतेच्या असतात. त्यांना चार्जिंगसाठी पाच तासांचा अवधी लागतो. टाटा पॉवरने अधिक क्षमतेचे चार्जिंग पॉइंटस बसवले आहेत. त्यामुळे तेथे या बसगाड्या दीड तासातच चार्ज

मुंबईत १४० केंद्रांवर दररोज ३५० बसगाड्यांचे चार्जिंग

मोठ्या बसचे चार्जिंग पाच तासाऐवजी दीड तासात केंद्राच्या धोरणाला अनुसरून चार्जिंग पॉइंटचे जाळे उभारण्याचा प्रयत्न

मुंबईत १४० पॉइंट

होतात.

मुंबईत एकूण १४० असे शीघ्र जलद पॉइंट बसवण्यात आले आहेत. हे पॉइंट 'बेस्ट'च्या मालवणी, वरळी, बॅकबे, मानखुर्द-शिवाजीनगर या आगारात आहेत.

तेथे दररोज ३५० बसगाड्या चार्ज होतात.

अहमदाबाद, दिल्ली, बेंगलुरू, गोवा, जम्मू व श्रीनगर या शहरांत ८५० चार्जिंग केंद्रे सुरू केली आहेत. कंपनीच्या प्रवक्त्यांनी याबाबत सांगितले की, 'हे चार्जिंग पॉइंट वाहनांचे जलद चार्जिंग करणारे आहेत. संपूर्ण बस जास्तीत

जास्त दीड तासांत चार्ज होऊ शकते. त्यामुळे ८५० चार्जिंग पॉइंटच्या माध्यमातून दिवसभरात दोन हजार ३०० हन अधिक बसगाड्या चार्ज होतात. यापैकी बहतांश पॉइंट हे डेपोमध्ये बसविण्यात आले आहेत.'



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## **Tackling Heatwaves In Cities**

Accessible and affordable healthcare becomes paramount, ensuring that the most vulnerable populations can withstand and recover from the health impacts of extreme heat.

It's not just about treatment but prevention and support, creating a safety net that catches those who might otherwise fall through the cracks during heatwayes.

Public transport systems also play a vital role as reliable and efficient transportation networks reduce the dependence on private vehicles, thereby lowering emissions and urban heat island effects.

The present crisis emphasises the need to rethink green infrastructure as a means to combat extreme heatwayes.

Green infrastructure involves a network of naturebased solutions aimed at tackling urban and climaterelated challenges.

These solutions include stormwater management, climate adaptation, reducing heat stress, promoting biodiversity, and sustainable energy production, alongside human-centred measures like offering shade and shelter.

Green infrastructure creates an ecological framework that fosters the social, economic, and environmental health of communities.

It has, therefore, become imperative that solutions for mitigating extreme climatic events in urban areas must be sought in the very process of urbanisation, with a focus on environmental engineering.

Urban planning through environmental engineering mainstreams the transition to sustainable options to tackle complex urban challenges.

In its Sixth Assessment Report, the Intergovernmental Panel on Climate Change emphasised ecosystem-based approaches like urban greening, restoration of urban forests and wetlands, and establishing early warning systems for further adaptation.

Global innovations provide valuable lessons for creating more liveable cities.

Singapore tackled urban heat with green roofs and vertical gardens, while New York City's Cool Roofs programme painted rooftops white to reflect sunlight and lower heat absorption.

Similarly, in its 20-year strategy implemented in 2012, Melbourne focussed on increasing its urban forest, with a goal to increase canopy cover to 40 per cent by 2040.

Effective strategies for reducing urban heat include integrating more green infrastructure into cities.

Increasing the number of parks, gardens, and green

roofs can significantly lower urban temperatures.

Similarly, planting urban forests, with trees lining streets and filling public spaces, not only reduces temperatures but also improves air quality and enhances the city's aesthetic appeal.



A woman holding a cold water bottle on her head walks on Heritage Street to get relief on a scorching hot afternoon near the Golden Temple in Amritsar.

Another essential approach involves using cool roofs and pavements. Cool roofs, designed to reflect more sunlight and absorb less heat than standard roofs, use reflective materials or coatings.

Similarly, cool pavements, which can be applied to parking lots, sidewalks, and streets, reflect more solar energy, resulting in lower surface temperatures.

Effective water management also plays a crucial role in mitigating heat.

Urban water bodies can cool surrounding areas through evaporative cooling.

Additionally, rain gardens and bioswales, designed to manage stormwater and reduce runoff, contribute to cooling urban environments through the presence of both water and vegetation.

Designing cities to be more compact can reduce the heat island effect by minimising paved surfaces and reducing the need for extensive transportation networks.

Also, orienting buildings to maximise natural ventilation and shade can decrease reliance on air conditioning, thus lowering overall heat generation.

By integrating these diverse strategies, cities can mitigate the impact of heatwaves, improve urban liveability, and enhance resilience to climate change, ensuring a healthier and more sustainable urban environment for the future.



## Suzlon secures 103.95 MW order from AMPIN **Energy Transition**

Suzlon Energy Limited has secured a 103.95 MW order from AMPIN Energy Transition Private Limited. Suzlon will install 33 wind turbine generators with a hybrid lattice tubular tower and a rated capacity of 3.15 MW each at the client's site in the Fatehgarh district in Rajasthan. The order is for the company's 3.15 MW, S144 -140m turbines from the 3 MW product series. As part of the agreement, Suzlon will supply the wind turbines (equipment supply) and execute the project, including erection and commissioning. Suzlon will also undertake comprehensive operations maintenance services post-commissioning.

## **KEC International** secures order worth Rs 10.61 billion

KEC International Limited has secured new orders of Rs 10.61 billion across its various businesses including transmission and distribution, railways and cables. The company's transmission and distribution (T&D) business has secured orders for T&D projects in India, East Asia Pacific and Americas for transmission lines and substation from a developer in India, transmission line in Malaysia as well as supply of towers, hardware and poles in America. The business has also secured orders for supply of conductors and cables.

## HomeScape partners with SBI to provide easy financing options for residential solar customers

HomeScape by Amplus Solar has announced a strategic partnership with the State Bank of India (SBI) to provide convenient financing options for residential solar This collaboration allows HomeScape customers to secure loans of up to Rs 0.2 million for installations up to 3 kW and Rs 0.6 million for installations up to 10 kW. HomeScape Solar customers can apply for these loans via the Jan Samarth portal after registering on the PM Surva Ghar portal. The financing scheme offers an interest rate of 7 per cent for solar rooftop installations up to 3 kW and 10.15 per cent for installations between 3 kW and 10 kW. Home loan customers can also benefit from a reduced interest rate of 9.15 per cent, with a maximum tenure of 120 months, ensuring flexible and easy repayment options.

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## **Trickling Down to Viksit Bharat**

- Debashis Basu

new government will take over the job of running the country shortly. There is a lot of hope among businessmen and stock market participants that a third term led by Narendra Modi will transform India into viksit Bharat (developed India). The question is: How do we measure such a transformation? The popular indicators are: growth in gross domestic product (GDP), tax revenues, stock market indices,

growth in corporate profits, investment flows and so on. An improvement in these point towards increasing prosperity for the vocal, urban and prosperous minority. They dominate the chatter, so one automatically assumes these indicators will change India into a prosperous country. But will they?

Over the past several years, all these markers have been extremely positive. But have they delivered rapidly rising per capita income which is one of the most important signs of overall prosperity?

It pays to remember that India's per capita income or net national income rose from Rs72.805 in FY14-15 to Rs98,374 in FY22-23, at just 3.83% compounded annual growth rate (CAGR), according to the government's own data. Since the impact of actual inflation is underestimated, the actual rise in per capita income would be even lower. The living conditions of the average population encompassing education, health, public transport, pollution and justice system have not improved. In fact, these indicators have deteriorated.

I know, most readers switch off when one mentions these indicators while talking of viksit Bharat, but they can't be wished

away or substituted by narrow indicators like the stock market boom, growth in corporate profits and mutual fund inflows, as measures of real prosperity.

Most readers, including those connected to the stock market, are less interested or simply unaware of the issues facing the vast majority of India's population that lives in rural and semi-urban areas. The general elections gave us an opportunity to sample the problems







they face, when the television channels, which normally belt out screaming matches from their studios in Noida, went out and queried people about their poll choices, which spilled over to answers about their living conditions. What did these answers reveal? Captured by an otherwise pro-government media, were three themes: inflation, unemployment and income inequality – all encapsulated in two words 'rural distress'.

Prime minister Modi is certainly aware of the issue on income equality. After all, he allowed a question on inequality to be asked by a reporter during the dozens of interviews he gave to a grateful media as part of his poll campaign. His answer was to ask a counter question: "Should everybody be poor? Everyone should be poor, then there will be no difference. This was the case in the country earlier."

He went on to argue: "Now you say that everybody should be rich, so it will happen gradually not overnight. Some will come, they will bring those who are below. Those who will come a little higher will pull up others. So there is a process."

This is the famous trickle-down theory which works ever so slowly, keeping generations of people poor. Interestingly, when it came to examples of the trickle-down theory working, the PM drew them from the prosperous class: 1.25 lakh start-ups, increased foreign travel and huge orders for airplanes by airline companies—examples which do little to support any change in the fate of 800mn (million) out of 1.4bn (billion) people living on 5kg rations doled by the government every month.

To charge up economic growth after seven years of slow improvement, the Modi government has spent and will continue to spend Rs11 lakh crore every year – on railways, roads, urban transport, waterworks, energy transformation, defence production, etc, which would also create millions of jobs. This will no doubt create a corporate and stock market boom, but it should also have led to job growth. It hasn't; or not enough to make much of a difference.

In a report in 2023, Knight Frank, a real estate consultancy, had forecast that India's booming housing market in its top-8 cities would propel the construction sector to contribute about one-fifth to the economy by 2030, employing 100 million workers.

Real estate stocks have been on a tear. The Nifty Real Estate index is up 200% over the last two years.

How much of this prosperity has trickled down?

According to an analysis by Arindam Das and Yoshifumi Usami, between FY21-22 and FY22-23 the average daily real rural wages of construction sector workers declined, with female women workers getting a worse deal. While there is the national minimum wage for unskilled construction workers (which form about 80% of the sector's workforce) according to CEIC, a data and analysis company, 15 of the 20 states tracked didn't meet this minimum wage "signifying the extent of informal employment in the economy and weak enforcement."

There is another way to understand how little is trickling down. Strong trickle-down through wage growth would eventually lead to higher consumption of essential items such as basic clothing, utensils and personal care products like soaps. But the financial performance of companies selling these products is stagnant.

Not surprisingly, CEIC data also reveals that 10-year real wage growth for construction workers in nine out of 20 states was negative and for four states was insignificant.

Political strategist Prashant Kishor, who has travelled all over Bihar for the past two years, highlights that people are suffering acutely due to unemployment, income inequality and inflation. Unless the government addresses these issues, protests – with or without political leadership – would erupt.

Enormous resources raised indirectly from all including the poor in the form of taxes and levies are wasted on expenditure eaten by corruption at the state and district levels. This is why we are not generating wealth fast enough and distributing the wealth fairly enough. The irony is that if the urban elite truly want viksit Bharat, they would have to part with their prosperity in some form or other, which they are loath to do. Trickle-down and viksit Bharat are incompatible ideas.

(Courtsey: Business Standard newspaper)



## Solar power generation breaks record

The share of solar power in Türkiye's electricity generation reached an all-time high on June 16, the first day of the Eid al-Adha holiday, the Energy Ministry has said.

Türkiye produced 682,233 megawatts of electricity on June 16 and 109,501 of this was generated by solar power, according to Energy Minister Alparaslan Bayraktar.

"The share of solar energy in electricity generation was 16.05 percent throughout the day. This rate exceeded 44 percent during the day, breaking a record," Bayraktar said.

The share of renewable resources in electricity generation was 63 percent, and the share of domestic and renewable resources was 78.4 percent throughout that day, he added.

"We will continue to break new records in this field by commissioning 3,500 megawatts of solar energy installed power every year for the next 12 years," he said, noting that according to the latest report by the International Renewable Energy Agency (IRENA), Türkiye is among the top 11 countries in the world and ranked 5th in Europe in terms of renewable energy installed capacity.

Türkiye's electricity installed capacity reached 107,959 megawatts as of the end of March.

Hydraulic energy accounted for 29.6 percent of this capacity, while the shares of natural gas and coal were 23.2 percent and 20.2 percent, respectively, according to data from the Energy Ministry.

The shares of wind, solar and geothermal energy were 11.2 percent, 11.7 percent and 1.6 percent, respectively.

Türkiye's electricity consumption dropped 0.2 percent last year to 330.3 TWh, while its power generation fell 0.6 percent from 2022 to 326.3 TWh.

Last year, 10.4 percent of electricity generation came from wind, and another 5.7 percent from solar energy.

Türkiye's electricity consumption will increase to 380.2 TWH in 2025, climb further to 455.3 TWh in 2030, and hit 510.5 TWh in 2025, according to the forecasts in the National Energy Plan.





## PM Surya Ghar Yojana

The PM Surya Ghar Yojana, also known as the PM Muft Bijli Yojana, is launched in the 2024-25 budget by Former Finance Minister Nirmala Sitharaman. This initiative aims to help Indian families by providing them with rooftop solar panels at a reduced cost.

The main goal of PM Muft Bijli
Yojana is to increase solar energy
at an easier and cheaper cost.
Solar energy is a clean and
renewable source of power. Through this scheme Govt.
will provide a subsidy on rooftop solar.

The PM Surya Ghar Yojana is designed to help families install solar panels on their roofs. Solar panels capture sunlight and turn it into electricity. This allows families to generate their own power, which can lower their electricity bills. If they make more electricity than they use, they can sell the extra power back to the electric grid and earn money.



### Objectives of PM Surya Ghar Muft Bijli Yojana

- Reduce Electricity Costs: Provide families with up to 300 units of free solar electricity each month, which can significantly cut their power bills.
- Promote Green Energy: Encourage the use of solar energy instead of electricity, helping to protect the environment.

## PM Surya Ghar scheme: Beneficiaries can now give up subsidy...

New Delhi: Residential consumers installing rooftop solar plants under the Pradhan Mantri Surya Ghar Muft Bijli Yojana can opt out of receiving the subsidy granted by the government. The operational guidelines of the scheme, launched by the centre, state that a 'Give it Up' option will be enabled in the national portal of the project. The subsidy thus opted out of will be extended to more eligible users. The scheme, which provides financial support for grid-connected rooftop solar projects, mandates that consumers must install domestically manufactured solar panels to avail of the subsidy.

This stipulation, however, will not apply to those giving up the subsidy. The project envisions the installation of solar panels on the rooftops of one crore housing units across the country. A subsidy of Rs. 30,000 will be given to the beneficiaries to meet the expense of installing a solar plant with a capacity of one kilowatt, Rs. 60,000 for two kilowatts, and Rs. 78,000 for three kilowatts. The operational guidelines include all details of implementing the project. Although Housing Societies are also eligible for the subsidy, the power generated by the plant should be used in common areas including evehicle charging stations. None of the houses in the society are allowed to use the power generated by these

modules. The societies can install power plants with a capacity of up to 500 kilowatts and will receive a subsidy of Rs. 18,000 per kilowatt. The subsidy will be calculated by accounting for three kilowatts for each house.

For instance, if a housing society comprising 20 houses installs a plant with a 100-kilowatt capacity, it stands to receive Rs. 10.8 lakh as a subsidy. For a housing society with 50 houses, installing a plant with the same capacity will cost Rs. 18 lakhs. The guidelines also clarify the extension of the subsidy when houses that already have rooftop solar projects raise their capacity. For instance, if a house raises the capacity of its plant from one kilowatt to four kilowatts, it stands to receive the subsidy for only two out of the three additional kilowatts (Rs. 48,000) if it had already availed of the subsidy for the initial capacity. The central subsidy is available only up to an installed capacity of three kilowatts. Similarly, no central © Copyright 2024 Onmanorama. All Rights Reserved. assistance will be received if an existing plant is relocated to another place.

The PM Surya Ghar project will be extended to applications received from February 13, 2024. The implementation period of the programme will be until March 31, 2027.

- Increase Self-Sufficiency: Help families become more independent by generating their own electricity.
- Create Jobs: Provide employment opportunities for people who install and maintain solar panels.
- Improve Energy Security: Make the country less dependent on traditional power sources by diversifying energy production.

### Benefits of PM Muft Bijli Yojana

- Financial Savings: Families can save money by using free solar electricity from their rooftop panels. They can also sell any extra electricity back to the grid for additional income.
- Support for Electric Vehicles: Extra electricity can be used to charge electric vehicles, which is cost-effective and eco-friendly.
- Job Creation: The scheme creates demand for solar panel vendors and installers, opening up new business opportunities and providing jobs.
- Reduced Government Spending: The government can save money by reducing the demand for electricity from the national grid, allowing for better use of resources in other areas.

- Environmental Benefits: Using more solar energy reduces reliance on fossil fuels, lowering carbon emissions and environmental impact.
- Enhanced Energy Security: Decentralizing power generation with solar panels makes the country's energy supply more secure and less prone to failures.

## Eligibility Criteria for PM Surya Ghar Rooftop Solar Scheme

- **Residential Status:** Applicants must be residents of India.
- **Home Ownership:** Applicants must own a home with a suitable roof for solar panels.
- Existing Electricity Connection: Applicants must have an active electricity connection to integrate the solar panels with the power grid.
- No Previous Subsidies: Applicants who have already received subsidies for solar panels from other schemes are not eligible.

## Subsidies Under PM Surya Ghar Muft Bijli Yojana

The government provides significant financial subsidies to make installing solar panels more





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affordable. Here's how the subsidies work:

- Up to 2 kW: Households can receive Rs. 30,000 per kilowatt (kW) for installations up to 2 kW.
- For Additional Capacity up to 3 kW: A lower subsidy of Rs. 18,000 per kW applies for installations exceeding 2 kW up to 3 kW.
- Systems Larger Than 3 kW: The total subsidy for systems larger than 3 kW is Rs. 78,000.
- Group Housing Societies and Resident Welfare Associations: Installations for communal facilities in these societies receive a subsidy of Rs. 18,000 per kW for capacities up to 500 kW.

### How to Apply for PM Surya Ghar Muft Bijli Yojana

- 1. Visit the Official Website: Go to the official website of the PM Surya Ghar Muft Bijli Yojana at pmsuryaghar.gov.in.
- **2. Start the Application:** Click on the 'Apply for Rooftop Solar' button.
- **3. Enter Details:** Select your state, district, and electricity distribution company. Enter your customer account number and click 'Next'.
- **4. Provide Contact Information:** Enter your mobile number and email, and follow the instructions to complete the registration.
- **5. Log In:** Use your customer account number and mobile number to log in.

- **6. Submit Application:** Apply for 'Rooftop Solar' as per the provided form.
- Site Approval: Wait for approval from your electricity distribution company (DISCOM). Once approved, proceed with installation through a registered vendor.
- **8. Install and Apply for Net Meter:** Install the solar panels and then apply for a net meter.
- **9. Inspection and Certification:** After installation, DISCOM will inspect the setup and issue a commissioning certificate.
- **10. Receive Subsidy:** Submit your bank details and a cancelled cheque to receive the subsidy in your bank account within 30 days.

### **Important Articles for You**

Gruha Lakshmi Scheme 2024, Application Process, DBT Status, Eligibility Details

- CM Ladli Behna Yojana, 13th Installment Date, Check Application Status
- PM Kisan Status Check, Beneficiary List, PM Modi Released 17th Kist of ₹2000
- Gruha Jyothi Scheme, Check Eligibility, Benefits, Application Form and Status

28 thoughts on "PM Surya Ghar Muft Bijli Yojana, Check Eligibility, Subsidy Amount, Application Process"

## New renewable energy minister Pralhad Joshi must ensure policy continuity

Top executives of the renewable energy industry believe the transition under the new minister Pralhad Joshi would be smooth and represents a pivotal moment for the clean energy sector in India, but he would need to ensure that policy continuity is exercised to reinforce investor confidence and drive advancements.

With the appointment of key ministers in the new Cabinet, Prahlad Joshi, formerly the minister of coal, assumed office as the new and renewable energy minister on 12 June.

"This is a smooth transition. To accelerate clean energy deployment at the pace needed to meet the 2030 targets, the renewable energy sector will need strong



alignment between the Centre and the states and also between different parts of the central government," Sumant Sinha, founder, chairperson and chief executive officer, ReNew, told ETEnergyWorld.

He added that the new government will continue its focus on achieving the target of 500 GW by 2030, catalyzing growth of the green hydrogen industry and boosting domestic manufacturing. "India's energy demand is set to continue to soar in the coming years, and ramping

up the share of renewables in the energy mix will remain an important policy goal for our energy security," said Sinha.



Kailash Tarachandani, CEO, Inox Wind, is optimistic that the new leadership will bring renewed vigor to accelerate the adoption and integration of renewable energy in India. However, there are several expectations tied to the new regime that could substantially benefit the renewable energy sector.

"These include extension of ISTS waiver, incentives for green power consumption, accelerating transmission infrastructure development, state-level policy and regulation alignment, among others," Tarachandani told ETEnergyWorld. Elaborating on each aspect, he said that when it comes to ISTS waiver, extending it for renewable

projects beyond June 2025 would be a significant step in supporting the sector's growth.

While it would be beneficial if the government announces schemes to incentivise green power consumption among retail consumers, encouraging wider adoption of renewable energy.

On accelerating transmission infrastructure development, he said, "While the planning and development of transmission infrastructure by CEA and Power Grid have improved, it still falls short of meeting the national targets for new renewable energy capacities. A more integrated alignment with developers and stakeholders is essential."

On state-level policy and regulation alignment, he added that they are looking forward to such policies becoming more proactive in aligning with the Green Energy Open Access Rules 2022. "States should be encouraged to provide banking facilities at nominal charges and limit levies such as cross-subsidy and additional surcharges to promote new green energy projects," he said.

Regarding distributed grid substations, he said that setting up more distributed grid substations

and associated lines of smaller capacities in high-yield areas could reduce the need for extensive 33 KV and 220 KV lines. "This would allow projects to be built closer to grid substations, enhancing efficiency," he added.

He further said that the government should introduce schemes and incentives that promote research and development, which would improve technology, resulting in higher wattage solar panels, higher megawattage wind turbines, and ultimately reducing per unit generation costs and improving efficiency.







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## Avaada Group to launch green methanol projects in two states over next three years

Plans to set up 'multiple' green ammonia, green methanol, and other green fuels production capacity as well

vaada Group is 'actively' developing green methanol projects and plans to launch them in two states over the next three years, the company's Chairman Vineet Mittal told ETEnergyWorld.

Mittal said that the company plans to set up 'multiple' green ammonia, green methanol, and other green fuels production capacity. "We are actively developing green methanol projects and over the next three years, we aim to launch these projects in two different states." he said.

The Mumbai-based green energy firm aims to advance green hydrogen and its various derivatives as a key component of its integrated energy transition strategy.

"Our first major project, with a capacity of 0.5 MTPA, is already under implementation at Gopalpur Port in Odisha," he said.

The company, which has an operational capacity of 4.5 GW at present, is also ramping up its execution capabilities to commission 4 GW renewable energy capacity per year, he added.

"Currently, we have an operational capacity of about 4.5 GW. Additionally, we have secured a capacity of about 18 GW and we are ramping up our execution capabilities to commission about 4 GW per year capacity, which positions us well to achieve our long-term goals," said Mittal.

He said that this steady annual addition is part of the company's strategic plan to accelerate the energy transition journey.

The company has set ambitious targets to expand its renewable energy capacity. By 2030, it aims to achieve a total installed capacity of 30 GW.

On policy expectations from the government and also in light of the upcoming Budget, Mittal said that the government should mandate a quota for the use of green hydrogen and its various derivatives in sectors such as fertilizers, chemicals, steel, etc.

"The government should also consider implementing a nationwide policy mandating the use of green M15 fuel, which means mixing 15 per cent green methanol with petrol, in transportation and other applicable sectors, supported by incentives for producers and consumers to adopt this fuel," he said.

He added that initially, GST should be kept nil on green hydrogen and its derivatives, whereas 5 per cent GST should be reinstated on solar power generating system and its related components.

According to Mittal, just like renewable energy generation projects, an equitable interest rate should be levied for solar module manufacturing projects as currently these projects bear an additional interest of 50 bps.

"Green hydrogen and its derivatives should be included in the harmonised list of infrastructure subsectors as these sectors have the capability to transform the country into a net energy exporter," he added.

He said that customs duty should be exempted for importing technologies, equipment for production of renewable power, manufacturing of green hydrogen and its derivatives such as electrolyzers, fuel cells, compressors and other imported components until adequate manufacturing capacity is established in the country.





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Fire Safety Devices Pvt. Ltd. (FireChem)

B-4, Second Floor, Rama Palace Commercial Complex Sector 20 B, Near Ajronda Modh Faridabad - 121 007 Haryana, India | Phone: +91-129-2288196/7/8 | website: www.firechem.in



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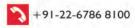




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