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पुढचे लक्ष्य - इकॅमेक्स-26

उमेश रेखे प्रभारी अध्यक्ष, इकॅम

नमस्कार प्रिय सभासद बंधूनो /भगिनिंनो,

एप्रिल महिन्यात मुंबईमध्ये "Vashi Integrated Solutions" द्वारे सोलर बाबत आपण सेमिनार आयोजित केला होता. त्यामध्ये ४० ते ४५ जणांनी सहभाग नोंदविला. सेमिनार अतिशय सुंदर झाला व सभासदांच्या चांगल्या प्रतिसादामुळे आयोजकांनाही प्रोत्साहन मिळाले. आपल्या क्षेत्रात येऊ घातलेल्या नवनविन कल्पना, रोजगार संधी यासाठी आपले तंत्रज्ञान अद्ययावत होण्याच्या संधीचा लाभ घेणे आवश्यक असून असे अनेक सेमिनार, कंपन्यांना भेटीद्वारे आपण अद्ययावत होणे, ही काळाची गरज आहे.

येत्या २९ एप्रिल रोजी "Polycab India Ltd." या कंपनीद्वारे वेबिनारचे आयोजन करण्यात येणार असून त्यामध्ये सुध्दा सर्वजण मोठया संख्येने सहभागी होतील अशी मला आशा वाटते.

सेमिनार व कंपन्यांच्या Factory भेटीसाठी येत्या दोन महिन्यात बरेच कार्यक्रमांचे संघतनेतर्फे आयोजन करण्यात येत असून त्यामध्ये जास्तीत जास्त सभासदांनी सहभाग नोंदवावा, ही अपेक्षा मी व्यक्त करतो.

दिनांक १ मे २०२५ रोजी महाराष्ट्र दिन व कामगार दिनाच्या निमित्ताने मुंबई येथील सभासदांसाठी सरोवर सेलिब्रीटी हॉल, कांदिवली (प) येथे संगीत रजनीचे आयोजन करण्यात आले आहे. गेल्या ४-५ वर्षापासून नियमितपणे आपण या कार्यक्रमाचे आयोजन करीत असतो. त्यामध्ये श्री. सतीश सिन्नरकर यांचे विशेष प्रयत्न व सहकार्य असते. अशा कार्यक्रमांमुळे सभासदांमध्ये एकी व बंधुभाव निर्माण होत असतो.



Exhibition Centre, Goregaon" येथे करणार असून त्या निमित्ताने एकंदर ३०० स्टॉलचे प्रदर्शन आपण भरवत आहोत. "So be prepare for that" या प्रदर्शनाच्या निमित्ताने विविध कंपन्यांच्या नविन उत्पादनांचे प्रदर्शन आपण भरवत असून या पर्वणीसाठी सभासदांनी आपला वेळ व आपला सहभाग नोंदवण्यासाठी सज्ज असावे.

आपल्या संघटनेच्या विविध विभागांकडून सभासदांच्या विविध अडचणी, समस्यांबाबत विविध निवेदने, प्रस्ताव मुख्य कार्यालयाकडे प्राप्त होत असून त्याबाबत मुख्य कार्यालयामार्फत विविध मंत्री महोदय, मंत्रालय, सा. बां. विभाग, महावितरण मुख्य कार्यालय यांच्याशी संपर्क साधून निवेदने देण्यात आली असून त्याबाबत मागोवा घेण्याचे काम अखंड चालू असते.

सभासदांनी त्यांना येणाख्या अडी-अडचणी, प्रश्न, समस्यांबाबत आपल्या संघटनेच्या स्थानिक विभागीय कार्यालये, संचालक मंडळ यांच्याशी संपर्कात रहावे. आपल्या अडी-अडचणी, प्रश्न, समस्यांबाबत उपाय काढण्यासाठी संघटनेचे सर्व पदाधिकारी कटीबध्द आहेत.

वार्षिक सर्वसाधारण सभेमध्ये आपणाला आम्ही आवाहन केले होते की "Each One Get One" या युक्ती प्रमाणे प्रत्येक सभासदाने एक नविन सभासद आपल्या संघटनेत जोडणे आवश्यक आहे. त्यामुळे आपली संघटना यापेक्षाही अधिक मजबूत होईल अशी आशा व्यक्त करतो.

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देवांग ठाकूर महासचिव, इकॅम

नमस्कार मित्रांनो,

दिनांक १८ एप्रिल २०२५ रोजी मे. वाशी इंटिग्रेटेड सोल्युशनच्या वतीने सोलरबाबत सेमिनार आयोजित करण्यात आला होता. सदर सेमिनारला मुंबईचे ४५ सभासदांनी सहभाग नोंदवला. सदर सेमिनार अत्यंत उत्साहात व खेळीमेळीच्या वातावरणात पार पडला.

दिनांक २९ एप्रिल २०२५ रोजी मे. पॉलिकॅब इंडिया लिमिटेडच्या वतीने केबल टाकण्यासाठी व्यावसायिक मार्गदर्शन या विषयावर वेबिनार घेण्यात आला. केबल टाकण्यासाठी व्यावसायिक मार्गदर्शन अंतर्गत केबल्स हाताळण्याच्या, साठवण्याच्या व टाकण्याच्या योग्य पध्दती स्थापनेपूर्वी केबलची चाचणी तसेच दुरूस्ती व देखभाल पध्दती या विषयांवर मे. पॉलिकॅब इंडिया लिमिटेडच्या क्वालिटी कंट्रोलचे असोसिएटस व्हाईस प्रेसिंडेट श्री. सुरेंद्र चोकसे यांनी मार्गदर्शन केले. सदर वेबिनारला सभासदांकडून प्रचंड प्रतिसाद मिळाला.

आपण ECAMEX 26 प्रदर्शन ४, ५ आणि ६ एप्रिल २०२६ या कालावधीमध्ये NEC, गोरेगाव मुंबई येथे आयोजित करीत आहोत. आम्ही सदर प्रदर्शनाबाबत इकॅमच्या सभासदांना सामाजिक माध्यमातून वेळोवेळी सुचित करीत आहोत. त्या प्रदर्शनास यशस्वी करण्यास आपला हातभार लागणे गरजेचे आहे. आपणास मी आवाहन करीत आहे की आपण या प्रदर्शनामध्ये स्टॉल बुकींग करण्यासाठी प्रयत्न करावेत. तसेच आपणास ECAMEX 26 प्रदर्शनाच्या अनुषंगाने काही महत्वाच्या सुचना द्यायच्या असतील तरी आपण त्या इकॅम मुख्य कार्यालयाला कळवाव्यात. ECAMEX 26 प्रदर्शनासाठी भव्य प्रतिसाद आपल्या सभासदांकडून मिळेल अशी आम्हाला आशा आहे.

इकॅमची सभासद संख्या वाढवण्यासाठी इकॅमकडून जोराचे प्रयत्न चालले आहेत.आपल्या सभासद संख्येत वाढ व्हावी यासाठी आपले बहुमूल्य सहकार्य आम्हाला अपेक्षित आहे. आपणास आवाहन करतो की आपण आपल्या आजुबाजुला असलेल्या नविन विद्युत ठेकेदारांशी संपर्क साधून त्यांना इकॅम संघटनेविषयी सविस्तर माहिती देऊन सदर ठेकेदारांना इकॅमचे सभासद बनवून घेण्यासाठी प्रयत्न करावेत व सभासद वाढीसाठी प्रयत्न करावा.

आपल्या आय.ई.सी.टी. मासिकामध्ये आपण आपल्या व्यवसायासंदर्भात विविध लेख छापत असतो. मी आपणास आवाहन करतो की ज्या सभासदांना आपले लेख किंवा उपक्रमांसंबंधी काही माहिती आपल्या आय.ई.सी.टी. मासिकामध्ये छापण्यास द्यायची असेल तर ती इकॅम कार्यालयाकडे पाठवावी.

आपल्याला आपला व्यवसाय करताना काही अडचणी येत असतात. इकॅमच्या सभासदांना येणाऱ्या अडचणी सोडवण्यासाठी आम्ही प्रयत्न करू. त्या अडचणी आपण इकॅम मुख्यालयाला लेखी कळवाव्यात. आपल्या सभासदांना येणाछ्या अडचणींचे निराकरण करण्यासाठी सभासदांच्या बाजूने आम्ही कायम कटीबध्द राहू असे आम्ही आपणास आश्वासन देतो.

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# **Energy Conservation** and Global Warming

Satish Sinnarkar Editor, IECT

Energy conservation and global warming are closely linked, as reducing energy consumption can help mitigate the impacts of climate change.

For reducing Energy Consumption, simple actions like turning off lights, using energy-efficient appliances, and insulating buildings can significantly reduce energy consumption.

Another way is transitioning to renewable energy sources like solar, wind, and hydroelectric power which can reduce dependence on fossil fuels and lower greenhouse gas emissions.

Similarly implementing energy-efficient technologies, such as LED lighting and smart grids, can also contribute to energy conservation.

Now let us look at the Greenhouse Gas Emissions. The burning of fossil fuels releases greenhouse gases, such as carbon dioxide and methane, which contribute to global warming.

There are the Climate Change Impacts as well. Rising global temperatures are causing more frequent and severe weather events, sea-level rise, and other climate-related impacts.

We need Sustainable Solutions to overcome these challenges, such as reducing energy consumption, increasing energy efficiency and transitioning to renewable energy sources. These can help mitigate the impacts of global warming.

What an individual can contribute to reduce the climate change is necessary to address. One can reduce energy consumption by making conscious choices to reduce energy consumption, such as turning off lights and electronics when not in use.

Using public transport, cycling, or walking can also reduce greenhouse gas emissions and promote sustainable transportation. This can be done easily.

An individual can support the use of Renewable Energy by Investing in renewable energy sources, such as solar panels, or support companies that prioritize sustainability.

The society can think of collective action by advocating for policy changes that promote energy conservation and sustainability, such as increasing energy efficiency standards and investing in renewable energy.

The NGOs and trade associations working for climate change can engage with local communities to promote sustainable practices and raise awareness about the importance of energy conservation.

Last but not the least, every one should encourage global cooperation to address the global challenge of climate change and promote sustainable development.











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## Advanced fire safety solutions and technologies



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#### **Smart Fire Safety Systems**

- Smart Smoke Detectors: These detectors can differentiate between smoke types, discerning real fire threats and reducing false alarms. They also integrate with other home systems, providing real-time alerts and controlling escape routes.

Automated Sprinkler Systems : Advanced sprinklers assess and respond to threats, minimizing damage and water waste. They can be integrated with smart home ecosystems for enhanced safety. - Heat Sensors : Heat sensors in critical areas trigger alerts if temperatures rise beyond normal levels, indicating potential fire hazards.

### **Advanced Fire Detection Technologies**

- Artificial Intelligence (AI) : AI-powered systems predict fire risks, optimize response strategies, and analyze patterns to prevent fires.

Internet of Things (IoT) : IoT-enabled devices ensure seamless communication among safety systems, providing real-time data and predictive analytics.

Multi-Criteria Detection : Advanced sensors and multi-criteria detection reduce false alarms, differentiating between actual fire conditions and nonemergencies.

#### **Fire Suppression and Response**

- Gas Fire Extinguishing Systems : These systems suppress fires without damaging sensitive equipment, ideal for data centers and industrial facilities.

Active Suppression Methods : Specialized agents

or gases quickly suppress fires, targeting specific areas and minimizing damage.

Remote Monitoring and Control : Building owners can access real-time data, receive alerts, and perform remote diagnostics, ensuring proactive maintenance and early detection of system malfunctions.

#### **Integrated Fire Safety Solutions**

Integrated Fire Suppression and Alarm Systems : Comprehensive solutions combining fire suppression and alarm systems for enhanced protection.

Biometric and RFID Access Control Systems : Secure authentication systems for controlled access to buildings and areas. - CCTV Surveillance Systems : Advanced surveillance systems for monitoring and securing premises.

#### **Benefits of Advanced Fire Safety Solutions**

- Enhanced Safety : Advanced fire safety solutions provide rapid detection, minimizing downtime and protecting assets.

Reduced False Alarms : Modern systems reduce false alarms, saving time and money.

Increased Efficiency : Real-time monitoring and predictive analytics enable proactive maintenance and optimize response strategies.

Cost Savings : Advanced systems minimize damage, reduce emergency response costs, and lower insurance premiums.





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## Stay Compliant with the Latest Fire Safety Regulations in 2025

### • C7DTeam • January 6, 2025 • Security System

Overview: Protect what matters most with up-todate fire safety compliance! Learn about critical regulation changes in 2025 and how to keep your property safe. Read on!

Fire safety compliance is a critical responsibility for businesses, property owners, and facility managers. As we step into 2025, staying updated on the latest fire safety regulations is more important than ever. The consequences of non-compliance can range from hefty fines to tragic loss of life — none of which we'll like.

By ensuring your property meets the newest standards, you not only protect lives and assets but also demonstrate your commitment to safety and legal responsibility.

#### Let's learn this together!

#### What's New in 2025 Fire Safety Regulations?

Several updates have been introduced in 2025 to address evolving risks and improve fire prevention strategies. Below are some of the key regulatory changes you should be aware of:

Enhanced Fire Alarm Systems Requirements : New regulations mandate the use of advanced fire alarm systems with improved detection technology, including multi-sensor detectors that can differentiate between actual fires and false alarms. Properties must also integrate smart monitoring systems that provide real-time alerts to local fire departments.

Increased Focus on Emergency Evacuation Plans : Businesses are now required to conduct semi-annual fire drills instead of annual ones. In addition, evacuation plans must account for individuals with mobility impairments, ensuring that proper assistance and equipment are available.

Stricter Standards for Fire Doors and Exits : Fire doors must regularly be inspected and maintained to ensure they close and latch properly during a fire. Exit routes must remain unobstructed always, and illuminated exit signs must meet higher brightness and durability standards.

Updated Fire Extinguisher Placement and Maintenance: The placement of fire extinguishers has been revised to ensure they are more accessible in case of an emergency. Routine inspections must now occur quarterly, and staff should receive hands-on training annually on proper fire extinguisher use.

**Compliance with Green Building Fire Safety Guidelines :** With the growing trend toward sustainable construction, 2025 regulations emphasize fire safety in green buildings. These include the use of fireresistant materials in eco-friendly designs and ensuring that solar panels and energy storage systems meet fire prevention standards.

**Related Reading:** Fire Safety: Reflecting on 2024 & Looking Ahead to 2025 Steps to Stay Compliant

Staying compliant requires proactive measures. Here are some steps to help you meet the latest regulations:

**Conduct a Fire Safety Audit:** Hire a certified fire safety inspector to conduct a comprehensive audit of your property. This will help identify areas that need improvement and ensure compliance with the updated regulations.

**Upgrade Fire Safety Equipment:** Ensure your fire alarms, extinguishers, and sprinkler systems are up to date and meet the new standards. Consider investing in smart fire safety systems that provide remote monitoring and instant alerts.

**Revise Your Emergency Response Plan:** Review and update your emergency evacuation plans to align with the latest guidelines. Include detailed procedures for assisting individuals with disabilities and conduct regular training sessions for employees.

Keep Records of Inspections and Drills: Maintain detailed records of all fire safety inspections, equipment maintenance, and fire drills. These records will serve as proof of compliance in case of an audit or inspection by authorities.

Local Fire Safety Compliance in Highland and Surrounding Areas

If you own or manage a property in Highland or nearby areas such as San Bernardino, Redlands, Loma Linda, Yucaipa, Riverside, and Colton, staying compliant with local fire safety regulations is crucial. Each of these cities may have specific guidelines in addition to national standards, making it essential to work closely with local fire authorities.

Regular inspections and drills tailored to the unique needs of your location can ensure full compliance and enhance safety for your business and community.

### In Summary

Fire safety is not just a regulatory requirement but also a moral obligation. The updated regulations in 2025 are designed to enhance safety, improve response times, and reduce the risk of fire-related incidents. By taking the necessary steps to stay compliant, you protect your business, employees, and customers.

Take action today to ensure your property is ready to meet the challenges of 2025. A small investment in fire safety today can prevent costly consequences tomorrow.

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# THE FUTURE OF FIRE SAFETY: WHAT ADVANCEMENTS MEAN FOR YOU

Fire safety is evolving rapidly, with new technologies transforming how buildings detect, respond to, and manage fire-related emergencies. For building owners, managers, and occupants, these advancements promise more than just improved safety; they offer efficiency, cost savings, and peace of mind. Here's a closer look at how the future of fire safety is set to benefit you.

# HOW ADVANCEMENTS IN FIRE SAFETY BRING DIRECT BENEFITS

Fire alarm technology has moved beyond basic detection. Today's systems are integrated, intelligent, and adaptable, making buildings safer and reducing the impact of fire emergencies. But what does this mean for building owners and managers? In short, the latest fire safety innovations deliver tangible value—better detection, lower risk of false alarms, and a smoother experience for tenants and employees.

### PRECISION DETECTION FOR REDUCED COSTS

One of the biggest challenges in fire safety has always been false alarms, which disrupt building operations, frustrate tenants, and lead to costly fire department fees. With new detection technologies, modern fire alarm systems significantly reduce false alarms. Using advanced sensors and multi-criteria detection, they differentiate between actual fire conditions and non-emergencies like cooking smoke or dust, saving you time and money.

# SEAMLESS INTEGRATION WITH BUILDING SYSTEMS

Today's fire alarms can be integrated with your building's other safety and operational systems. This connected approach enhances safety and simplifies building management. For example:

• Automatic Ventilation: In a fire event, integrated systems automatically control ventilation to contain smoke, making evacuation safer.

• **Controlled Access**: Fire alarms can unlock exit doors or direct elevators to safe floors, streamlining evacuation.

• **Fire Suppression Activation**: In severe fire conditions, the alarm system can work with sprinklers or fire suppression systems to mitigate damage early.

This level of integration provides a higher level of security and, due to reduced risk, can also mean

significant savings in insurance premiums.

### LOWER INSTALLATION AND MAINTENANCE COSTS

Wireless and hybrid fire alarm systems eliminate extensive wiring, making installation faster, especially for retrofit projects. This saves on upfront installation costs and simplifies maintenance. The flexibility of these systems allows for easy upgrades and additions, which is ideal as your building's needs evolve. You'll spend less time on maintenance and gain more adaptability in the long term.

### REAL-TIME REMOTE MONITORING AND CONTROL

Imagine monitoring your building's fire safety status from anywhere, anytime. Cloud-connected fire alarm systems make this a reality. You or your facilities manager can receive alerts, view system statuses, and even perform remote diagnostics through a secure app or platform. This level of control:

• **Saves time** by enabling immediate responses to system alerts, even when you're offsite.

• **Ensures compliance** with real-time system checks and instant access to data logs.

• **Enhances safety** by keeping fire safety staff informed of issues before they escalate.

With real-time visibility, you're empowered to stay ahead of potential risks, saving on emergency response costs and offering an added layer of assurance for occupants.

# DATA-DRIVEN INSIGHTS AND COMPLIANCE BENEFITS

Thanks to the Internet of Things (IoT) and cloud integration, fire alarms today can collect and analyze data about your building's safety status over time. This means you can easily view trends, predict maintenance needs, and demonstrate compliance. Regulatory compliance reporting is simpler and faster with access to automated logs and detailed records, saving time on inspections and audits. Additionally, the insights from **3** Science. Applied to Life.

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system data allow you to optimize fire safety strategies based on your building's specific patterns and needs.

### SUSTAINABLE FIRE SAFETY SOLUTIONS

New fire alarm systems also align with sustainability goals. These systems reduce energy consumption and waste by using energy-efficient components, minimizing false alarms, and leveraging remote diagnostics. This is good for the environment and contributes to a building's overall energy efficiency, which may lead to further savings and positive recognition for sustainable practices.

# A SAFER AND MORE SECURE ENVIRONMENT FOR EVERYONE

With advancements in fire safety technology, you're investing not just in compliance but in true safety and confidence for everyone in your building. Voice-activated evacuation systems, for instance, guide occupants through emergencies with clear instructions, which is especially useful in large or complex buildings. For tenants and employees, this enhances safety and can even boost retention by offering a more secure work or living environment.

### EMBRACE THE FUTURE OF FIRE SAFETY

Modern fire alarm systems offer powerful tools for protecting people, property, and peace of mind. Whether you're managing a high-rise, school, hospital, or industrial complex, these advancements make creating a safe, well-monitored environment easier. The bottom line? A more resilient, cost-effective, and userfriendly fire safety solution that grows with your needs.

Connect with AFA Protective Systems to explore how these innovations can benefit your building. We're here to help you bring the future of fire safety to your property with tailored solutions that prioritize safety, efficiency, and your space's unique needs.



# Insights into the latest fire safety regulations and compliance

The latest fire safety regulations emphasize enhanced safety measures to protect lives and property. Key updates include :

**Fire Alarm Systems :** Advanced fire alarm systems with improved detection technology, including multisensor detectors and smart monitoring systems, are now required. These systems provide real-time alerts to local fire departments, ensuring prompt responses to emergencies.

**Emergency Evacuation Plans :** Businesses must conduct semi-annual fire drills and develop plans that account for individuals with mobility impairments. Clear evacuation plans and regular training sessions are crucial for ensuring occupant safety.

**Fire Door Regulations :** Fire doors must be inspected and maintained regularly, with self-closing mechanisms and clear labels indicating fire ratings. This ensures that fire doors can effectively prevent the spread of fires.

**Fire Extinguisher Placement and Maintenance :** Fire extinguishers must be placed in accessible locations, inspected quarterly, and staff should receive hands-on training annually on proper usage.

Green Building Fire Safety Guidelines : The 2025 regulations emphasize fire safety in green buildings, requiring fire-resistant materials and ensuring solar panels and energy storage systems meet fire prevention standards. **Cybersecurity for Fire Alarm Systems :** The National Fire Protection Association (NFPA) 72 updates include comprehensive cybersecurity standards to protect fire alarm systems from hacking and vulnerabilities.

**Carbon Monoxide Detection :** Mandatory CO detectors are now required in all occupancy types, providing early detection and preventing potential tragedies.

**High-Rise Residential Buildings :** Stricter regulations apply to high-rise buildings, including regular fire risk assessments, clear evacuation plans, and improved fire detection systems.

### Compliance requirements include :

Written Fire Risk Assessments : Responsible persons must record fire risk assessments and communicate safety measures to occupants.

**Regular Inspections and Drills :** Quarterly checks on communal fire doors and annual checks on flat entrance doors are necessary to ensure compliance with fire safety standards.

**Resident Education and Awareness :** Educating residents on fire safety procedures and evacuation plans is crucial for ensuring their safety.

t's essential to stay informed about the latest fire safety regulations and conduct regular assessments to ensure compliance and mitigate fire risks.

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From childhood, we have been taught the principle of turning off devices or appliances when not in use. Usually, we turn off the fan, light, AC, refrigerator when we move out of home or when not in use. We adopt these practices not only to save money but also to reduce the consumption of energy. Appropriate behavior and habits can help in energy conservation. In this article, let us know the techniques of energy conservation in detail.

### What is Energy Conservation?

Energy conservation is the act of reducing the usage and wastage of energy. Switching off the AC, light, etc., when nobody is in the room are a few practices that help in energy conservation. We know energy is a broad term and is the fundamental source of living. Energy is classified into various types depending on its nature. Energy conservation is the means of reducing the consumption of energy.

To reduce the environmental impact on society, energy conservation measures are being imparted. Remember, by saving energy, you are protecting the environment directly. We know that energy is precious. Energy cannot be created or destroyed but can be transformed from one form to another.

## The best examples to demonstrate energy transformation from one form to another are:

1. The microphone is a device to convert sound energy into electrical energy.

2. The solar panel is used to convert sunlight to electrical energy.

3. Shafts in the windmill rotate to convert mechanical energy into electrical energy.

**Note:** Energy conservation day has been celebrated on December 14 every year since 1991.

#### Best Ways to Conserve Energy in Daily Life

• Adjust your day-to-day behaviours to turn off devices and appliances when not in use. Purchase devices and appliances which consume less energy.

• Adapt smart power strips: Do you know power or energy is consumed when the appliances are not in use. Yes, appliances draw power from outlets and are referred to as phantom loads. These smart power strips will help to cut down on phantom-load costs and save energy.

• Refrigerators are one of the main appliances that consume power. Keep the setting of the refrigerator low to save energy.

• Using CFL and LED bulbs to save energy. Regular incandescent bulbs consume more energy than CFL and LED.

• Clean or replace air filters as recommended. Air conditioners (AC) and heaters consume more energy than other appliances. Cleaning or replacing air filters improves efficiency and consumes less energy.



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• Operate dishwasher and washing machines in a full load. To get the most energy-saving use from each run cycle.

• Using a laptop instead of desktop computers can save considerable energy.

• Install water-saver showerheads to help with conserving hot water and save power.

• Use a slow cooker, toaster oven, or microwave oven over a conventional oven. Also, use utensils made of ceramic and glass.

- Cycling is the best way to save fuel.
- Walking instead of driving also saves energy.

• Skip the dryer on a breezy day and dry clothes on the clothesline.

### **Benefits of Conservation of Energy**

Energy conservation helps in :

- Saves the cost and lowers your utility bills.
- Prolongs the existence of fossil fuels.
- Protects the environment.
- Reduces pollution.

#### **Remember:**

Energy conservation day is celebrated on the 14th of December every year.

#### Frequently Asked Questions - FAQs

#### Q1 Do CFL and LED help in energy conservation?

Yes, CFL and LED consume less power than traditional fluorescent lamps and help in energy saving.

#### Q2 State law of conservation of energy

The law of conservation of energy states that "energy can neither be created nor destroyed but can only be converted from one form to another"

### Q3 Give an example to explain energy transformation from one form to another.

Energy transformation is seen in solar panels, where sunlight is converted into electrical energy.

### Q4 Explain two ways in which energy can be saved in day-to-day life.

Adapting smart power strips helps to reduce the loss of energy.

Operating a washing machine or dishwasher in full load helps to consume less energy than operating in half-load.

## Q5 What are the ways in which energy can be transferred?

Mechanically – By the action of force

Electrically – Electrically

By Radiation - By Light waves or Sound waves

By Heating – By conduction, convection, or radiation

### Q6 What is energy conservation?

Energy conservation is the means of reducing the consumption of energy.

### Q7 What are the benefits of energy conservation?

The following are the benefits of energy conservation:

- Saves the cost and lowers your utility bills
- Prolongs the existence of fossil fuels.
- Protects the environment.

Reduces pollution.



### Ministry of Coal rationalises CIMS portal registration fee to Rs 500 per consignment

The Ministry of Coal has rationalised the registration fee under the coal import monitoring system (CIMS) portal to a flat rate of Rs 500 per consignment.

The CIMS is a digital platform developed to enable real-time monitoring of coal imports and support data-driven policy formulation for coal import substitution. Importers are required to register details of coal consignments in the CIMS portal prior to their arrival at Indian ports and obtain an automatic registration number, which must be quoted in the bill of entry at customs clearance. The revised fee replaces the earlier slab-based structure ranging from Rs 500 to Rs 1,00,000 per consignment. The move brings the CIMS in alignment with other import monitoring systems such as the steel import monitoring system, non ferrous import monitoring system, and paper import monitoring system.





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# "We Didn't See This Coming": U.S. Stunned as \$134 Billion European Hydrogen Megaproject Becomes Largest Construction Site on Earth



Hydrogen fuel cells are poised to revolutionize the construction industry by replacing diesel generators and drastically reducing carbon emissions, yet challenges remain in scaling this promising technology.

The construction industry, long known for its environmental impact, is on the cusp of a transformative shift. As the world pushes for sustainability, hydrogen fuel cell generators are emerging as a promising alternative to traditional diesel generators. In particular, the ambitious HS2 project in the United Kingdom exemplifies this shift towards greener construction practices. This article delves into the potential of hydrogen as a clean energy source and highlights the challenges and innovations shaping its adoption in the construction sector.

### The Rise of Hydrogen Fuel Cells in Construction

The adoption of hydrogen fuel cells in the construction sector marks a significant departure from conventional energy sources. Hydrogen generators, pioneered by companies such as GeoPura, are poised to replace diesel generators, which are notorious for their carbon emissions. These fuel cells aim to **decarbonize one of the most polluting industries** by providing a clean and efficient energy source. However, the journey hasn't been without setbacks. The year 2024 saw several hydrogen-focused companies struggling, raising concerns about the scalability of this technology.

Despite these challenges, the HS2 project in the UK offers a glimmer of hope. This massive infrastructure endeavor utilizes hydrogen fuel cells to power construction sites, showcasing how these technologies can be integrated into large-scale projects. The potential for hydrogen in construction is vast, but its widespread adoption hinges on overcoming economic and logistical hurdles.

### Innovative Energy Solutions at the HS2 Site The HS2 Victoria Road construction site in London





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is a testament to the potential of hydrogen fuel cells. Underneath a network of conveyor systems, two unassuming white containers hum quietly, providing all the energy needed for the site. These containers house hydrogen fuel cells, a **revolutionary energy solution** that could pave the way for emission-free construction.

Hydrogen is often touted as the fuel of the future, and for good reason. It is the most abundant element in the universe and contains three times more energy than gasoline. The combustion of hydrogen releases only water, eliminating carbon emissions entirely. This makes it an ideal candidate for powering heavy industries, including construction. The HS2 project demonstrates the viability of hydrogen fuel cells in real-world applications, offering a glimpse into a sustainable future for construction.

### GeoPura's Vision and Business Model

GeoPura, in partnership with Siemens Energy Ventures, is at the forefront of hydrogen innovation. Founded in 2019, the company produces renewable hydrogen in the UK and supplies it to hydrogen power units (HPUs) leased to construction sites and events. By 2025, GeoPura aims to expand its fleet to 3,600 HPUs by 2033 and invest in green hydrogen production facilities.

This ambitious plan highlights GeoPura's commitment to fostering a **zero-emission construction industry**. The company's business model revolves around producing and distributing hydrogen efficiently, making it accessible for various applications. As the cost of hydrogen production continues to decline, the economic viability of these solutions is becoming increasingly apparent, bringing us closer to a cleaner construction landscape.

### **Economic Challenges and Future Prospects**

While hydrogen holds great promise, its deployment in the construction sector faces significant economic challenges. One of the primary barriers is the high cost of hydrogen compared to diesel generators. Additionally, the logistics of hydrogen production and distribution add complexity to its adoption. However, these challenges are not insurmountable.

Initiatives like those spearheaded by GeoPura are driving down production costs, and ongoing innovations in the field are paving the way for a less polluting construction industry. As more companies invest in hydrogen technologies, the construction sector may soon undergo a *green revolution*. The question remains: how quickly can these changes be implemented, and what impact will they have on the industry's carbon footprint?

The potential of hydrogen as a clean energy source for construction is undeniable. With projects like HS2 leading the way, the industry is gradually shifting towards more sustainable practices. However, the road to widespread hydrogen adoption is fraught with challenges, particularly economic ones. As we look to the future, the question remains: will hydrogen fuel cells transform the construction industry, and what new innovations will emerge along the way?

### Bajel Projects commissions 132 kV transmission line for ZESCO in Zambia

Bajel Projects Limited, a Bajaj Group company, has successfully commissioned a 132 kV single circuit transmission line project for Zambia Electricity Supply Corporation Limited (ZESCO) in Lusaka, Zambia. The project comprises three key transmission lines: Coventry – Waterworks (3.5 km), Jimmy – Chawama (7.5 km), and Coventry – Jimmy (2.5 km), designed to enhance grid reliability and support Lusaka's growing power demand.

### **ReNew commissions 1.3 GWp solar project in Rajasthan**

ReNew has inaugurated a 1,300 MW peak solar power project in the Jaisalmer district of Rajasthan.

The project is spread over approximately 3,500 acres, and covers villages in the Pokran and Bhaniyana tehsils. Around 90 per cent of the solar panels used in this utility-scale installation were manufactured at ReNew's factory in Jaipur. The energy produced will be supplied to Rajasthan consumers at a tariff of Rs 2.18 per kWh. Reportedly, the project will be able to meet the annual energy needs of around 500,000 households in the state.





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### **Benefits of BLDC Fans**

- Energy Efficiency: BLDC fans consume significantly less power, up to 70% less than traditional fans, making them a cost-effective option.

- Longer Lifespan: With minimal wear and tear, BLDC fans last longer and require less maintenance.

- Quiet Operation: BLDC fans operate almost silently,

# **BLDC (Brushless Direct Current) technology**

providing a peaceful environment.

- Smart Features: Many BLDC fans come with remote control, Wi-Fi connectivity, and voice control through smart assistants like Alexa or Google Assistant.

#### **Key Features to Consider**

- Energy Efficiency Ratings: Look for fans with high energy efficiency ratings, indicated by stars.

- Airflow Capacity: Choose a fan with the right airflow capacity for your space.

- Sweep Size: Consider the sweep size of the fan, with larger sweeps providing better airflow.

- Number of Blades: More blades can provide smoother airflow, but may increase noise.

#### **Top Brands**

Some popular BLDC fan brands in India include :

- Atomberg
- Crompton
- Havells
- Jupiter
- Orient
- Superfan

Overall, BLDC fans offer a reliable, energy-efficient, and cost-effective solution for cooling needs.

### **Difference Between BLDC Fans vs Normal Fans**

BLDC- Brushless Direct-Current motors convert electric energy to mechanical energy. Intelligent speed control, high torque, and low maintenance characterize DC motors. Robotics and heavy-duty vehicles are among the fields of application for DC motors. A closedloop controller receives power from the BLDC through an inverter.

The revolutionary feature makes the BLDC motor a futuristic need.

1. Robotics and heavy-duty vehicles are among these industries.

2. A closed-loop controller receives power from



the BLDC via an inverter.

3. Current passes to its windings to control the speed and torque of the control unit.





4. BLDC motors have high efficiency, with low maintenance requirements.

5. They are more stable and long-lasting.

### What is BLDC Fan Technology?

BLDC fan technology is creating a buzz in the market. It is energy efficient and helps in cost-cutting over electricity bills. A brushless direct current motor (BLDC) functions on direct-current electricity. BLDC motors contain permanent magnets rather than electromagnets used in induction motors.

The permanent magnet contains less heat loss and energy compared to electromagnets. A BLDC motor converts alternate current into DC. That works at power fluctuations and on low voltage. The BLDC Fan Technology in Energion Stylus helps save energy and makes your living room more stylish and aesthetic.

The BLDC motor has three working components: the rotor, stator, and shaft. It uses a sequence of gears to convert electrical into mechanical energy. A BLDC fan driver attains their power from SMPS.

Advantages and Disadvantages of BLDC Fan

Like every technology has two sides: BLDC fans also have advantages and disadvantages.

Advantages of BLDC fans

1. Traditional Ceiling fans run on AC motors. Yet, fans with BLDC technology use brushless DC engines that cut power consumption by 65%.

2. BLDC winding has thick copper cables to ensure a longer lifespan with low winding issues. These fans do not get overheated.

3. The carbon brushes are absent from the rotor and the stator of the BLDC fan. Hence, there is no hidden maintenance cost involved in the replacement of brushes.

4. BLDC fans maintain high torque to secure high-quality performance.

5. An induction motor has carbon bruises that create friction, which creates noise. A BLDC fan has zero friction, hence creating minimal noise.

6. BLDC motors comprise electronic control systems. That promotes fewer possibilities of collapse because of wear and tear. An induction motor fan has a mechanical commutation unit.

### **Disadvantages of BLDC fans**

1. BLDC fans are expensive compared to an

induction motor fan. The setup comprises an electronic controller in BLDC. An ordinary fan motor has an inexpensive mechanical commutation system.

2. BLDC fans produce minimal vibrations at low voltage, which causes resonance. But, it is adjustable.

3. The BLDC technology is new to fans, and it is difficult to find an experienced technician to install it.

4. BLDC motor has complicated wiring to install. Because of the presence of an electronic control unit that links to electromagnets

### Importance of BLDC fan in Day to Day Life

Fans are an integral part of every individual's life, irrespective of weather. We don't realize that the fan runs for hours and consumes more units than a refrigerator. Fans are the major contributor to our electricity costs.

1. BLDC fans consume considerate power. It consumes a minimal current lowered by 65% compared to an induction motor fan.

2. BLDC motor runs on low current so can run longer on solar, regular, and inverters.

3. They operate on a remote control that promotes luxury and comfort hand-in-hand.

4. BLDC fans provide a comfort zone by facilitating timer and sleep mode as functions.

5. BLDC fan has the next-generation technology. That facility sets specifications like speed reduction at different points in time

How much money does a BLDC fan save in a year?

Calculate your savings on BLDC fans here

An ordinary induction motor fan consumes about 80 Watts. A BLDC motor fan's 35 Watt consumption. We operate a fan for almost 8 hours, 365 days per year. Let's assume the residential power consumption rate is Rs 7 per unit.

A traditional fan will consume around 233.6 units (80 Watts 0.08\*8\*365) that cost around Rs 1635.2 (233.6 units \* 7)

A BLDC fan consumes 87.6 units (30 Watts = 0.03\*8\*365) that costs around Rs 613.2 (87.6\*7)

That saves us around Rs. 1022.per year. Most fans work 8+ hours per day goes up to 1500-2000 bucks.

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## The Power of BLDC Technology Ceiling Fans: Saving Money and the Planet

Post by Madhusudan Singhania

As technology continues to advance, even the humble ceiling fan has undergone a transformation. Gone are the days of the traditional fans that only served the purpose of cooling a room. In 2023, we have entered an era where power-saving BLDC (Brushless Direct Current) technology ceiling fans have taken center stage. These innovative fans not only offer enhanced features like remote control and WiFi app control but also boast a 5-star energy rating. In this blog post, we will explore why consumers should opt for power-saving BLDC technology ceiling fans over regular fans, and how these fans help save both money and the planet.

1. Energy Efficiency: The Key to Saving Money

One of the primary reasons to choose a powersaving BLDC technology ceiling fan is its exceptional energy efficiency. Unlike traditional fans that consume a significant amount of electricity, BLDC fans are designed to operate at a fraction of the energy consumption. This means that you can enjoy the cool breeze without worrying about skyrocketing electricity bills. By switching to a power-saving BLDC fan, you can save up to 50% on your energy costs, making it a wise long-term investment.

2. 5-Star Energy Rating: A Symbol of Excellence BLDC technology ceiling fans proudly carry a 5-star energy rating, which is the highest rating for energy efficiency. This rating signifies that these fans meet the strict energy consumption guidelines set by regulatory bodies. When you choose a 5-star rated ceiling fan, you can be confident that you are making a sustainable choice that will not only benefit your pocket but also contribute to a greener planet.

### 3. Remote Control and WiFi App Control: Convenience at Your Fingertips

BLDC technology ceiling fans come equipped with advanced features like remote control and WiFi app control. With a simple press of a button on the remote or a tap on your smartphone, you can effortlessly adjust the fan speed, set a timer, or even control it from anywhere in your home. This convenience adds a touch of modernity to your living space and makes it easier than ever to create a comfortable environment.

4. Environmentally Friendly: Saving the Planet

By choosing a power-saving BLDC technology ceiling fan, you are not only saving money but also contributing to a sustainable future. These fans consume less electricity, which means a reduced demand for power generation. This, in turn, leads to a



decrease in greenhouse gas emissions and helps combat climate change. By making a small change in your choice of ceiling fan, you are actively participating in the global effort to protect our planet.

5. Longevity and Durability: A Wise Investment

BLDC technology ceiling fans are built to last. With their advanced motor technology, these fans are designed for durability and longevity. They require minimal maintenance and are less prone to wear and tear compared to regular fans. By investing in a powersaving BLDC fan, you are not only saving on energy costs but also ensuring that you have a reliable and efficient cooling solution for years to come.

In conclusion, power-saving BLDC technology ceiling fans are the future of cooling solutions. With their energy efficiency, 5-star rating, advanced features, and environmental benefits, these fans offer a compelling reason to make the switch. By choosing a power-saving BLDC fan, you are not only saving money but also making a positive impact on the planet. So, why settle for a regular fan when you can have a technologically advanced, energy-saving, and ecofriendly cooling solution?

# Saving Energy, Staying Safe – Simple Steps for India Today

In India, where cities like Mumbai, Delhi, and Bengaluru are growing fast, electricity is a big part of our lives. But with more people using power, we face two big challenges: saving energy and staying safe from electrical accidents. The Electrical Contractors' Association of Maharashtra (ECAM) is working hard to help us tackle these issues, and in this blog, we'll talk about easy ways to save energy and stay safe in 2025.

#### Energy Conservation: Use Less, Save More

India is facing a power crunch. With hot summers and growing industries, our electricity demand is at an all-time high. The government says we lose about 20% of our energy due to old appliances and wasteful habits. But we can change that with simple steps!

Switch to Smart Fans and Lights: Use 5-star rated fans and LED bulbs. They use less electricity but work just as well. For example, a BLDC fan can save you up to 50% on your electricity bill compared to an old fan.

Turn Off When Not in Use: Don't leave fans, lights, or chargers on when you don't need them. Even small things like phone chargers use power when plugged in.

Go Solar if You Can: Many homes in India are now using solar panels. In sunny states like Maharashtra, solar power can help you save money and reduce pressure on the power grid.

Saving energy not only lowers your bills but also helps the environment by reducing coal usage, which powers most of India's electricity.

#### Electrical Safety : Keep Your Family Safe

Electrical accidents are a big problem in India. In 2024, over 10,000 people were injured due to electrical fires and shocks, often because of bad wiring or carelessness. ECAM wants everyone to stay safe with these easy tips:

**Hire Licensed Electricians:** Don't try to fix electrical problems yourself. Always call a licensed electrician, like those approved by ECAM, to do the job safely.

**Check Your Wires:** Old or damaged wires can cause fires. Look for signs like sparks or burning smells, and

get them fixed immediately.

**Don't Overload Sockets:** Plugging too many devices into one socket can cause overheating. Use good-quality extension cords and avoid overloading them.

In rural areas, where power cuts are common, people often use unsafe methods like illegal connections. This is dangerous! Always report issues to your local electricity board instead.

### ECAM's Role in India Today

ECAM, which has been around since 1925, is helping India stay safe and save energy. They organize events like ECAMEX to teach people about electrical safety and new technologies. Their May 2025 magazine will share more tips on how to save energy and stay safe, especially with the rising use of fans in Indian homes.

With summer heatwaves getting worse—temperatures hit 45°C in parts of India in 2024—fans are a must-have. ECAM suggests using energy-efficient fans to stay cool without using too much electricity. They also remind us to keep safety first by ensuring proper wiring for all appliances.

#### Let's Act Together

India is growing, but we need to grow smartly. By saving energy, we can make sure there's enough power for everyone. By staying safe, we can protect our families from accidents. ECAM is here to guide us, but it starts with us taking small steps every day.

So, let's switch to efficient appliances, check our wiring, and spread the word about safety.

Visit www.ecamindia.org to learn more and join ECAM's mission for a safer, greener India!

Regards,

Nitin Aher Whole Time Director Rulka Electricals Limited www.relservices.in



# Waaree launches all-in-one solar kits at RenewX 2025

Waaree all-in-one solar kits are available in multiple capacities—from 3 kW to 10 kW for homes, and up to 5 MW for commercial and industrial clients.

Waaree has launched its Radiance all-in-one solar kits at RenewX 2025, aimed at simplifying solar adoption for both residential and commercial customers. The kits are offered in multiple capacities—from 3 kW to 10 kW for homes, and up to 5 MW for commercial and industrial clients.

"Everything a residential solar customer needs now comes packed in a single box. This not only removes the hassle of juggling multiple components but also makes life easier for our EPC partners on the ground," a company spokesperson told **pv magazine**. Each kit includes Waaree-manufactured mono PERC or TOPCon solar modules, inverters, and Waacabbranded cables, along with other components from Waaree's OEM partners.

For example, the 3.2 kW on-grid solar kit, priced at INR 160,000, includes six 540 Wp mono PERC modules, two solar distribution boxes, an inverter, solar cables, earthing kits, and miscellaneous C-class items. Meanwhile, the 3.3 kW variant features six highefficiency 560 Wp TOPCon modules.

The kits are available for purchase through Waaree's own e-commerce platform, as well as on Amazon and Flipkart.



# MEIL receives purchase order for ₹12,800-crore EPC contract from NPCIL

Hyderabad-based Megha Engineering & Infrastructure (MEIL) on Wednesday said it has formally received purchase order for a ₹12,800-crore EPC contract from the Nuclear Power Corporation of India Limited (NPCIL) to construct two 700 MWe nuclear reactors, Kaiga Units 5 and 6, in Karnataka.

This is the biggest ever order placed by NPCIL and marks MEIL's first major step into the nuclear energy sector, a field that will help shape India's energy future. It was also for the first time NPCIL used the Qualitycum-Cost-Based Selection (QCBS) method for awarding the project — striking a careful balance between quality and cost. Competing with industry giants like BHEL and L&T, MEIL was chosen for its strong technical approach and competitive pricing, Megha said in a release.

The order was handed over at NPCIL's Mumbai headquarters to Director, MEIL (Projects) Ch. P. Subbaiah. On the occasion, MEIL leadership expressed confidence in the team's ability to deliver project on time while maintaining highest standards of safety, quality, and care.



Rept Battero's new 392 Ah battery energy storage system (BESS) cell is an all-rounder, with the same size but increased energy density over a previously manufactured cell.

Hong Kong-listed Rept Battero launched a new battery cell at the 13th Energy Storage International Conference and Expo (ESIE 2025) in Beijing last week.

Rept Battero said its new 392Ah battery cell, which is part of its brand of Wending series cells, has an energy density of up to 415 Wh/L. Billed as an "allrounder" by the company, the new cell has a longer cycle life of 12,000 times and a high energy efficiency of 95%, while having almost the same size as the previous 300+ series. The company says the improving maturity of its chemical system delivers a higher capacity cell in the same sizing.

The maximum thermal runaway temperature of the 392 Ah cell is similar to that of the 314 Ah cell which the company says were tested at "home and abroad" in unspecified safety tests.

# अटल प्रतिभा पोषण केंद्र-आरएमपीचा मुंबईतील वर्ल्ड ट्रेड सेंटरसोबत सामंजस्य करार

तरुण उद्योजक व स्टार्ट-अप्सना सक्षम करण्यासाठी रामभाऊ म्हाळगी प्रबोधिनीचा नवा उपक्रम



मुंबई: २५ एप्रिल: यशस्वी उद्योग व व्यापार हे समृद्ध राष्ट्रासाठी अतिशय महत्त्वाचे असतात. यासाठी तरुण उद्योजकांचा क्षमता विकास अत्यंत आवश्यक असतो. निती आयोग, भारत सरकारच्या अटल इन्होव्हेशन मिशन अंतर्गत २०१९ पासून रामभाऊ म्हाळगी प्रबोधिनीमधील अटल प्रतिभा पोषण केंद्र (इंक्यूबेशन सेंटर – एआयसी) नव्या पिढीतील उद्योजकांना प्रत्यक्ष मार्गदर्शन व मदत करीत आहे. याच उद्दिष्टाला धरून काल अटल प्रतिभा पोषण केंद्र– आरएमपीने मुंबईतील वर्ल्ड ट्रेड सेंटरसोबत एक सामंजस्य करार (मेमोरॅंडम ऑफ अंडरस्टॅंडिंग) केला. तरुण प्रतिभावान लोकांना सक्षम करणे, उद्योजकतेचा विकास करणे आणि स्टार्ट-अप्सना जागतिक स्तरावर त्यांचा व्यवसाय विकसित करण्यासाठी उद्योगविश्वातील अनुभवावर आधारित मार्गदर्शन करणे हा यामागील हेतू आहे.

जागतिक विस्तारासाठी संपर्क व नवनिर्मिती

स्टार्ट-अप्सना जागतिक व्यवसाय संधी व गिऱ्हाईके उपलब्ध करून देताना नवनिर्मिती व उद्योजकतेला प्रोत्साहन देण्यासाठी म्हाळगी प्रबोधिनीच्या अटल प्रतिभा पोषण केंद्र व वर्ल्ड ट्रेड सेंटरच्या एम. विश्वेश्वरैया इंडस्ट्रीयल रिसर्च अँड डेव्हलपमेंट सेंटरची (एमविआयआरडीसी) भागीदारी महत्त्वाची आहे. या उपक्रमाची उद्दिष्ट्ये आहेत:

१) जागतिक बाजारपेठेसाठी विस्तारायोग्य अशा स्टार्ट-अप्स शोधणे व त्यांना मदत करणे

२) उद्योजकता व नवनिर्मिती अभ्यासक्रमांचा एकत्रपणे विकास करणे

३) जागतिक उद्योग नेत्यांसोबत संपर्क व व्यापारासाठी मदत करणे

४) कार्यशाळा, प्रशिक्षण व जलद गतीचे अभ्यासक्रम आयोजित करणे ५) उपक्रमांसाठी एकत्रित प्रसिद्धी, जाहिरात व वक्ता निवड म्हाळगी प्रबोधिनीच्या मुंबईजवळील उत्तनमधील निसर्गरम्य ज्ञान नैपुण्य केंद्रात या सामंजस्य करारावर स्वाक्षऱ्या झाल्या. यावेळी श्रीमती आकृती बागवे, कामकाज संचालक, वर्ल्ड ट्रेड सेंटर, मुंबई; श्रीमती. स्मिता देशमुख, प्रमुख, सेंटर ऑफ एक्सलंस, एमविआयआरडीसी, वर्ल्ड ट्रेड सेंटर, मुंबई, आणि श्री. उदय वांकावाला, मुख्य कार्यकारी अधिकारी, अटल प्रतिभा पोषण केंद्र-आरएमपी, हे उपस्थित होते. याप्रसंगी श्री. वांकावाला म्हणाले, ङ्गनवनिर्मिती व जागतिक बाजारपेठांतील अंतर भरून काढून स्टार्ट-अप्सच्या विश्वाला सक्षम करणे आणि होतकरू उद्योजक व व्यवसायांना नव्या संधी उपलब्ध करून देणे हा या भागीदारीचा हेतू आहे. वर्ल्ड ट्रेड सेंटर, मुंबईचे कार्य उल्लेखनीय असून आमच्या एकत्रित उपक्रमातून आत्मनिर्भर भारताच्या ध्येयाला नक्कीच हातभार लागेल.' श्रीमती बागवे म्हणाल्या, 'तरुण उद्योजक व स्टार्ट-अप्सना

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सक्षम करणे, जागतिक संपर्काच्या संधी देणे आणि उद्योगाधारित अभ्यासक्रमांच्या माध्यमातून त्यांना कार्यविस्तार करीत यशस्वी व्हायला मदत करणे यासाठी एआयसी-आरएमपीसोबत एकत्र काम करायला आम्ही उत्सुक आहोत.ङ्घ

आजपर्यंत १००+ स्टार्ट-अप्स आणि ७००+ जणांना रोजगार!

शेती, शिक्षण, आरोग्य व तंत्रज्ञान या क्षेत्रांत उद्योगातून रोजगार निर्माण करणे हा रामभाऊ म्हाळगी प्रबोधिनीच्या अटल प्रतिभा पोषण केंद्राचा हेतू असून यातून उद्योग व समाज दोन्हींना लाभ होत आहे. तरुण कौशल्यवान लोकांना प्रोत्साहन देण्यात हे अटल प्रतिभा पोषण केंद्र महत्त्वाची कामगिरी बजावत आहे. यातून एकूण ५०+ कॉपोरेट भागीदाऱ्या, २०+ शैक्षणिक भागीदाऱ्या, १०+ गुंतवणूक भागीदाऱ्या व ७५+ मार्गदर्शकांच्या मदतीने १००+ स्टार्ट-अप्स यशस्वीपणे सुरु करून ७०० हून जास्त लोकांना रोजगार मिळवून दिला आहे. स्टार्ट-अप्सच्या प्रणेत्यांसाठी मार्गदर्शन सत्रे, होतकरू उद्योजकांसाठी पायाभूत अभ्यासक्रम, स्टार्ट-अप्ससाठी प्राथमिक कार्यशाळा आणि मुलभूत उद्योजकता विकास अभ्यासक्रम हे प्रबोधिनीच्या अटल प्रतिभा पोषण केंद्राचे प्रमुख उपक्रम आहेत. आत्तापर्यंतच्या वर्गांमध्ये आरंभ कोहोर्ट, परिवर्तन व सामान्य कोहोर्ट, विभा कोहोर्ट व फास्ट ट्रॅक कोहोर्टचा समावेश आहे.

्रजनसंपर्क विभाग, रामभाऊ म्हाळगी प्रबोधिनी



### Gautam Solar Launches Powerful 640 Wp Bifacial Panel With High-Efficiency Rectangular N-Type TOPCon Tech

Gautam Solar has introduced its new Rectangular N-Type TOPCon Bifacial Solar Panel, aligning with the growing need for smart and high-performance photovoltaic solutions in the solar industry. With this launch, the company became one of the early manufacturers in India to adopt and roll out the next-generation N-Type TOPCon technology, which is known for its high efficiency and enhanced energy output.

This new solar panel has been developed to meet the changing demands of solar developers and engineering, procurement, and construction (EPC) companies. It offers a high power output range of 620 Wp to 640 Wp and features module efficiency levels between 22.95% and 23.69%. The product has received certification from the Bureau of Indian Standards (BIS) as a next-generation solar module. This addition further strengthens Gautam Solar's portfolio of advanced TOPCon products, reinforcing its commitment to performance-driven, technologically advanced solar solutions.

The panel is built using rectangular N-Type TOPCon bifacial solar cells. These cells are designed to improve energy yield by increasing the active area of the module and minimizing energy losses. Their bifacial design allows the panel to absorb sunlight from both the front and rear sides, enhancing the total energy generation, especially in locations with high ground reflectivity (high albedo). The rectangular shape of the solar cells enables a higher cell packing density, contributing to improved energy density and better utilization of available space.

The new panels are engineered to perform well under various conditions. They show lower rates of degradation over time, which means they retain more of their initial efficiency for a longer period. Additionally, the panels have a strong temperature coefficient and can maintain high output even in low-light situations. These factors collectively contribute to the durability and reliability of the modules, making them suitable for a wide range of environments. The design also offers resistance to potential-induced degradation (PID) and is built to withstand high mechanical loads, ensuring long-term performance and stability.

Gautam Mohanka, CEO, Gautam Solar, said in a statement, "The launch of the Rectangular N-Type TOPCon Bifacial Solar Panel is a great leap toward innovation in solar modules. This product promises all—efficiency, durability, and system cost savings. Gautam Solar is proud to present an all-ready future solution that meets the evolving requirements of developers and EPC partners, as the Indian solar industry heads towards scaling up installations with utility-grade performance."

Another key advantage of the Rectangular N-Type TOPCon Bifacial Solar Panel is its ability to deliver higher energy per module. This means fewer panels are required to achieve a specific power capacity, which in turn helps reduce the cost of balance of system (BOS) components such as mounting structures, cabling, and labor for installation. This reduction in hardware and installation requirements contributes to overall cost efficiency for solar power projects.

The rectangular N-Type TOPCon cell configuration enhances the energy yield per square meter of surface area, making the panels particularly suitable for large-scale ground-mounted solar installations. Their design supports better returns on investment by increasing energy output while minimizing land and component usage. These panels are developed to address the immediate needs of the solar industry for scalable, cost-effective, and high-output systems, particularly as India continues to advance toward its renewable energy targets.



# THDC synchronises first unit of 1,000 MW Tehri pumped storage project

The company is currently operating 1,000-MW Tehri HPP (hydro power project) and 400-MW Koteshwar HEP (hydro electric power)

State-owned THDC India on Thursday announced synchronisation of the first 250 MW unit of its pumped storage plant (PSP) in pump condenser mode at Tehri in Uttarakhand.

In pump condenser mode of operation, the turbine is used to generate electricity and simultaneously as a condenser or a heat exchanger.

THDC India is constructing a 1,000-MW (250 MW X 4 units) PSP project at Tehri.

"CMD R K Vishnoi has announced achievement towards successful commissioning of India's first variable speed 1,000 MW PSP at Tehri with the successful synchronisation of its first unit (of 250 MW) to the Indian grid in pump condenser mode," THDC India said in a statement.

With the completion of this pumped storage project, the tehri hydro power complex will have a total installed capacity of 2,400 MW.

The company is currently operating 1,000-MW Tehri HPP (hydro power project) and 400-MW Koteshwar HEP (hydro electric power).

Based in Rishikesh, Uttarakhand, THDC India is a 75:25 per cent entity of the Centre-owned NTPC and government of Uttar Pradesh.

(Only the headline and picture of this report may have been reworked by the Business Standard staff; the rest of the content is auto-generated from a syndicated feed.)







# वीज बिलाचा वैताग संपला...

# यूटीएलने काढले फक्त ६ हजारात सोलर पॅनेल, जाणून घ्या टिव्ही,पंखा,लाईट,फ्रीज किती वेळ चालणार

नवी दिल्ली : आजच्या काळात, जेव्हा दरमहा विजेच्या बिलात मोठा वाढ होते, तेव्हा सोलर पॅनेल बसविणे एक महत्वपूर्ण पाऊल बनत आहे. विशेषत: जेव्हा आता बाजारात अशी शक्तिशाली सोलर पॅनेल्स आहेत जी कमी किंमतीत उत्कृष्ट परफॉर्मन्स देत आहेत. असाच एक पर्याय आहे – यूटीएलचे 330W सोलर पॅनेल, जे आता फक्त ₹ 6000 मध्ये खरेदी केले जाऊ शकते. हे पॅनेल विशेषत: घरगुती वापरासाठी लोकप्रिय होत आहे आणि लोकांमध्ये त्याची प्रचंड मागणी दिसून येत आहे.

### UTL330W सोलर पॅनेलचे फिचर्स

उशा टेलिलिंक्स लिमिटेड (Usha Telelinks Limited) ही भारतातील एक सुप्रसिद्ध सोलर कंपनी आहे जी विश्वासाई आणि टिकाऊ सोलर उत्पादने बनवते. यूटीएलचे (UTL 330W) वॅट सोलर पॅनेल ए-ग्रेड सौर पेशींचे बनलेले आहे, मल्टीबसबार तंत्रज्ञानाचा वापर करून, यामुळे अधिक शक्ती निर्माण होते. हे पॅनेल एक पीआयडी प्रतिरोधक आहे, म्हणजेच त्याची कार्यक्षमता कालांतराने प्रभावित होत नाही. हे एक आयपी ६७ रेटिंग प्रदान करते, जे ते पाणी आणि धूळांपासून सुरक्षित ठेवते.

कंपनी त्यावर २५ वर्षांची कामगिरीची हमी देखील देते, ज्यामुळे ती दीर्घकालीन गुंतवणूक होते. त्याची धातूची चौकट खूप मजबूत आहे, जेणेकरून ती प्रत्येक हंगामात टिकाऊ राहते. ते मजबूत सूर्यप्रकाश किंवा हलके पाऊस असो, हे पॅनेल वर्षभर वीज करत आहे.

### यूटीएल ३३० डब्ल्यू पॅनेल किंमत?

यूटीएलच्या या पॅनेलच्या बाजारपेठेतील वास्तविक किंमत

₹ 7500 ते ₹ 8000 दरम्यान आहे, परंतु आपल्याला इंडियाइमार्ट आणि स्थानिक विक्रेत्यांसारख्या बऱ्याच ऑनलाइन प्लॅटफॉर्मवर फक्त ६००० रुपये मिळत आहेत. तथापि, ही किंमत सरकारी अनुदानाशिवाय आहे. जर आपण ते पंतप्रधान सुर्याघर योजना अंतर्गत स्थापित केले तर आपण त्यावर अनुदान देखील मिळवू शकता, ज्यामुळे किंमत आणखी कमी होईल.

### 330 w पॅनेलमधून किती वीज निर्माण केली जाईल?

हवामान आणि सूर्याच्या तीव्रतेनुसार ३३० वॅट सौर पॅनेल दररोज सुमारे १.३ ते १.५ युनिट्स उर्जा निर्माण करू शकते. म्हणजेच ते एका महिन्यात सुमारे ४० ते ४५ युनिट्स पर्यंत वीज बनवू शकते. त्यानुसार, आपल्या घराच्या गरजेनुसार आपल्याला ३ किंवा ४ अशी पॅनेल्स मिळाल्यास आपले वीज बिल जवळजवळ संपुष्टात येऊ शकते. दरमहा सुमारे ₹ १००० ते १५०० रुपयेची बचत करणे शक्य आहे. आपण ते ऑफ-ग्रीड सिस्टमसह स्थापित केल्यास, आपल्याला बॅटरी आणि चार्ज कंट्रोलर देखील स्थापित करावे लागेल, परंतु आपण ग्रिड-टाय सिस्टम स्थापित केल्यास बॅटरीची आवश्यकता नाही आणि किंमत देखील कमी आहे.

## CATL unveils 587 Ah battery energy storage cell

The competition in the development of largecapacity cells is heating up, with the industry's top player stepping up to shape the new standard in the battery energy storage space.

China's CATL, the world's leading battery maker, has officially showcased its new 587 Ah high-capacity battery cell, which will be integrated into its nextgeneration TENERenergy storage system.

This new battery cell boasts an energy density of up to 430 Wh/L and according to the manufacturer,

offers superior safety performance compared to traditional small battery cells while maintaining ultrahigh energy efficiency.

While impressive, this energy density and cell capacity are not unheard of. Chinese manufacturers have been actively competing to develop high-capacity battery energy storage cells, searching for the next sweet spot in the post-300+ Ah era.

To continue reading, please visit our ESS News website.



### Illuminating Landscapes: K-lite's High-Quality Architectural Luminaires

"Established in 1977, K-lite is renowned for its extensive range of high-quality architectural luminaires and poles that cater to diverse applications and design preferences."

Since its inception, K-lite through it manufacturing units in focusses on the production of sustainable and efficient LED luminaires. K-lite's products meet stringent quality standards while embodying elegant aesthetics.

K-lite's landscape products are designed to withstand various environmental challenges such as wind, water, direct sunlight, rain, and dust. Each outdoor luminaire boasts high IP (ingress protection) and IK ratings, ensuring robustness and durability suitable for outdoor and landscape applications.

The Range offered by K-lite is comprehensive and versatile. It includes Linear Wall Washers, Up-Down Lighters, LED Strips/Neon Flex, Promenade Lighting, Bollards, Underwater Lighting, Post Top Luminaires, Bulkheads, Pathfinders, IP67 Linear Profiles, Polar Lighting, and a newly introduced series of Facade Lighting.

K-lite's commitment to innovation and quality, shines through in every product, blending functional efficiency with aesthetic appeal. Each luminaire in the landscape range is meticulously crafted to enhance outdoor spaces, offering not only illumination but also enhancing the visual appeal of architectural environments. Whether illuminating pathways, accentuating building facades, or creating ambiance in public spaces, K-lite's luminaires deliver reliability and elegance, making them the preferred choice for architects, landscape designers, and developers aiming to transform outdoor spaces with lighting solutions that integrates form and function seamlessly.

### **K-LITE INDUSTRIES PRIVATE LIMITED**

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Factory : #267-A, White County Road, Bommasandra Industrial Area, (Next to Ranka Steel Unit -II), Bommasandra - Jigani Link Road, Bangalore - 560 105. INDIA Mobile : +91 78998 62592 Email : sales2@shriramspectape.com | www.shriramspectape.com



## New benchmark in surge protection by Phoenix Contact

### **VAL-SPP Series:**

The new benchmark in #surgeprotection VALVETRAB Safe Protection Plus combines forward thinking installation and safety features. In both AC and PV applications, VAL-SPP ensures high system availability in compliance with the latest standards.

### Easy and safe installation and operation

High demands are placed on the availability of electrical systems. With Safe Protection Plus (SPP), Phoenix Contact is already setting the surge protection standards of the future, today. The VALVETRAB-SPP devices combine forward-thinking installation and safety features that ensure the high availability of your system.

### Miswiring and touch protection

Our new VALVETRAB Safe Protection Plus #surgeprotection ensures maximum safety thanks to the new touch protection. During testing, voltage parts can only be accessed with the appropriate tools. The miswiring protection allows safe insertion into the open clamping pocket. This prevents incorrect wiring.

### **Reliable system protection**

Back-up fuse-free use up to 315 A, double insulation between the main and auxiliary circuits -

these are just two of the many other features of our new VALVETRAB-SPP #SurgeProtection, which stands for maximum performance and reliable system protection.

### Remote signaling with double insulation

SPP = Safe Protection Plus in our new VALVETRAB-SPP Surge Protection also stands for double protection in the auxiliary circuit with safety extra-low voltages. Thanks to the double insulation between the main and auxiliary circuits, the #protective devices offer reliable system and personal protection.

### **Robust for many applications**

The VALVETRAB-SPP #SurgeProtection is robust and can be used in a wide range of applications. Use in harsh environments is no problem thanks to pollution degree 3. The wide temperature range and the broad portfolio of protective devices also offer a suitable solution for almost every application.

For further details Please Contact **Phoenix Contact India Pvt. Ltd.** F-26/2, Okhla Industrial Area Phase - 2, New Delhi – 110020 E-mail- adverts@phoenixcontact.co.in



# **MECO "POWERLINE TRANSDUCERS"**

MECO Power Line Transducers designed using know how from **MICRO DENSHI CORPORATION - Japan**. It is designed to comply the requirements of IEC 688/EN 60688, EN 61010-1, EM 61326-1 and I.S. 12784 (Part 1). All MECO Transducers pass through a stringent manufacturing and in-house quality control process consisting of vibration, burn-in and calibration tests to ensure complete reliability and accuracy during the continuous operation. It gives a load independent and isolated DC output directly proportional to the input parameters.

MECO Transducers having different Model of AC Current & Voltage, Frequency, 1P & 3P – Balanced or Unbalanced System for Active & Reactive Power (TRMS), Power Factor, DC Isolation for Voltage & Current and TAP Position / OLTC type.

MECO Transducers widely used for Automation & Control of the Power as well as for local and remote monitoring of the electrical parameters at every stage of Generation, Transmission & Distribution. They are ideal for SCADA, Energy Management, Telemetering, Data-Logging as well as Central monitoring systems. Used in various industries like Power Utilities, Railways, Cement, Steel, Aluminum, Chemicals, Fertilizers, Sugar, Petrochemicals etc.

Terminal Protection Cover, Reliable & Rugged Static Circuits, Low Ripple in Output Signal, Flame Retardant Polycarbonate Case, Open/Short Circuit Protection for Outputs, Din Rail Mounting and fast response time are key features of MECO Transducers.

Available with Choice of Multiple Asymmetrical Outputs, Bi-Directional Outputs, Bi-Directional Inputs for Import / Export, Wide Choice of Suppressed Ranges, & Auxiliary Supply with Self-Powered or SMPS are additional features.

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# सौर ऊर्जा वापरासाठी लोकसहभाग आवश्यक

–राजीव जतकर

गभरात वीजनिर्मिती प्रामुख्याने कोळशापासून किंवा पाण्यापासून केली जाते. कोळसा आणि पाणी या दोन्हीही स्त्रोतांची उपलब्धता मानवाच्या अतिरेकी वापराने कमी होत चालली आहे. सध्या अशा प्रकारच्या बातम्या आपण वाचतोच आहोत. कोळशाच्या कमतरतेमुळे चीन सारखा बलाढ्य देश संकटात सापडला आहे. आपला देश देखील अशाच संकटाच्या उंबरठ्यावर उभा आहे. त्यामुळे पर्यायी ऊर्जास्रोतांना महत्व येणार आहे, नव्हे ते आले आहे. त्यात वाऱ्यावर ऊर्जा निर्मिती तयार करणाऱ्या पवन चक्क्या 'जिथे वाऱ्याची ठराविक गती उपलब्ध असते' तिथेच उभारता येतात. त्यामुळे पवन उर्जेवर काहीश्या मर्यादा येतात. पण सूर्यापासून ऊर्जेची निर्मिती अमर्याद करता येऊ शकते असे लक्षात आले आहे. सूर्य प्रकाश जगभर कमीजास्ती प्रमाणात कायम उपलब्ध असतो. भारतातील बहुतांशी भागात तर वर्षातील तीनशे दिवस सूर्यप्रकाश असतोच असतो. शिवाय सौर वीजनिर्मितीमध्ये अनेक फायदे असतात. पंचवीस ते तीस वर्षे असे प्रदीर्घ आयुष्य असलेली ही यंत्रणा पूर्णपणे 'देखभाल' विरहित असून यातून अव्याहतपणे फुकट वीज मिळत राहते. मात्र अशा सौर यंत्रणा उभ्या करायला सुरवातीचा खर्च खूप येतो. अशा खर्चिक यंत्रणा उभ्या केल्यानंतर निर्माण झालेली वीज बॅटरी मध्ये साठवून ठेवावी लागते, आणि गरजेनुसार त्याचा वापर करावा लागतो. या बॅटऱ्या देखील महाग असतात त्याची देखभालीचाही खर्च येतो. त्यामुळे ही फुकट वाटणारी वीज ग्राहकांना फारशी परवडणारी नाही. आणि सर्वसामान्य ग्राहक हा खर्च करायला फारसा उत्सुक देखील नसतो.

### नेट मीटरिंग:

यावर उपाय म्हणून 'नेट मीटरिंग चे तंत्रज्ञान विकसित झाले. नेट मीटरिंग मध्ये बॅटऱ्यांचा वापर काढूनच टाकण्यात आला. या तंत्रज्ञानात इमारतीच्या छतावरील सोलर पॅनल द्वारा निर्माण झालेली वीज बॅटऱ्यांना न जोडता थेट महावितरणच्या जाळ्याला (ग्रीडला) जोडली जाते. निर्माण झालेली सौर ऊर्जा वापरून शिल्लक किंवा जास्त निर्माण झालेली वीज ग्राहक महावितरण ला देऊ शकतो, आणि मोबदल्यात त्याचा परतावा देखील मिळु शकतो. थोडक्यात ग्राहक महावितरण ला वीज विकू शकतो. ग्राहकांना फायदेशीर असलेली ही नेटमीटरिंग चे प्रणाली यूरोप अमेरिकेत अतिशय लोकप्रिय आहे. सुट्टीच्या दिवशी हमखास विकेंड ला घराबाहेर पडणारी ही पाश्चिमात्य मंडळी आपल्या घरावरच्या छतावर सौर वीज निर्मिती करून अतिरिक्त झालेली वीज विकून चक्क पैसे कमावतात. भारतात सुमारे २०१० मध्ये 'राष्ट्रीय सोलर मिशन' ची स्थापना झाली. देशात पुढे मात्र या सौर ऊर्जेच्या कामाने वेग पकडला. हळू हळू सर्वच राज्यांनी सौर उर्जेवर लक्ष केंद्रित केलं. प्रत्येक राज्याने नेट मीटर प्रणालीची आपापली धोरणे आखली. ऊर्जेची वाढती गरज आणि पर्यावरणाचे रक्षण या महत्वाच्या बाबींमुळे सुरवातीच्या काही वर्षातच गुजराथ, राजस्थान, कर्नाटक, आंध्र प्रदेश, केरळ या राज्यांनी सौर यंत्रणा उभ्या करण्यात आघाडी घेतली. केंद्र सरकारने देऊ केलेली अनुदाने ग्राहकांपर्यंत मोठ्या प्रमाणात पोहोचवली. मात्र महाराष्ट्रातील महाराष्ट्र राज्य नियामक आयोगाने (एम इ आर सी) सौर यंत्रणेबाबत निर्णय काहीसा उशिराच घेऊन दि. १० सप्टेंबर २०१५ रोजी नेट मीटर पॉलिसी जाहीर केली. याला 'देर से आये... दुरुस्त आये' असेच म्हणावे लागेल.

एखादा वीजग्राहक जेंव्हा घराच्या छपरावर फोटो व्होल्टाइक पॅनल बसवून स्वतः सौरऊर्जा निर्माण करतो, तेंव्हा निर्माण झालेली वीज डी. सी. (डायरेक्ट करंट) प्रकारची असते. इन्व्हर्टर या उपकरणाचा वापर करून या डी.सी. विजेचे ए. सी. (अल्टरनेटिंग करंट) प्रकारच्या विजेत रूपांतर केले जाते. ही सौरऊर्जा प्रथमतः ग्राहकाच्या गरजेप्रमाणे वापरली जाऊन उरलेली अतिरिक्त ऊर्जा किंवा वीज थेट वीजमहामंडळाच्या जाळ्याला (ग्रीडला) जोडली जाते. वीजग्राहकाच्या आणि महावितरणच्या यंत्रणांमध्ये एक टू-वे मीटर (याला नेट मीटर म्हणतात) जोडला जातो. या वैशिष्ट्यपूर्ण मीटरमध्ये ग्राहकाने निर्माण केलेल्या वीजे मधून वीज मंडळाच्या जाळ्याला जोडलेल्या विजेची नोंद केली जाते. तसेच ग्राहकाला त्याने निर्माण केलेली सौरऊर्जा कमी पडल्यास जी वीज महावितरण कडून घ्यावी लागते त्याची देखील नोंद ह्या नेट मीटर मध्ये घेतली जाते. ग्राहकाने वीजमंडळाकडून घेतलेली (इम्पोर्ट) वीज आणि ग्राहकाने वीजमंडळाच्या जाळ्याला दिलेली वीज (एक्स्पोर्ट) यांच्या नेट मीटर मधील झालेल्या नोंदीतील फरकानुसार वीज देयके (वीज बिले) बनवली जातात. थोडक्यात स्वतः निर्माण केलेली वीज, स्वतःच्या गरजेप्रमाणे वापरून उरलेली वीज ग्राहकाला वीजमंडळाला विकत येते. अर्थात असे करताना 'महाराष्ट्र राज्य विद्युत नियामक आयोगाने (एम.इ.आर.सी.) आखून दिलेल्या नियमांतर्गत राहन हा फायदा



काळाची पावले ओळखून आपल्या पंतप्रधानांनी श्री नरेंद्र मोदी यांनी 'पी.एम. सूर्याघर' योजना अमलात आणली आहे. तसेच शेतकऱ्यांना दिवसाही वीज पुरवठा व्हावा यासाठी 'सौर कृषी वीज वाहिनी योजना' देखील आमलात आणली आहे. कोणत्याही लोकोपयोगी प्रकल्पाला शासनाचे पाठबळ आणि राजकीय इच्छाशक्तीची जोड मिळाली की त्या प्रकल्पांच्या अंमलबजावणीला वेग येतो. या सौरऊर्जेच्या प्रकल्पांनी सध्या असाच वेग पकडला आहे. सौरऊर्जेच्या निर्मितीमुळे आणि वापरामुळे पर्यावरणाला देखील मोठा हातभार लागतो. महाराष्ट्राच्या सवांंगीण विकासासाठी आपल्या माननीय मुख्यमंत्री शेतकऱ्यांच्या सौरऊर्जेवर चालणाऱ्या कृषी पंपाबरोबरच स्थानिक पाणी पुरवठा, गावातील रस्त्यावरील दिवे, सार्वजनिक आटाचक्की, या सारख्या वापरासाठी देखील सौरऊर्जा वापर करण्यासाठी उद्युक्त केले जात आहे. गावातील ग्रामपंचायत कार्यालय, स्थानिक पाणीपुरवठा योजनांची विजेची गरज सौर पॅनेल्स बसवून पूर्ण केली जात आहे. सातारा जिल्ह्यातील पाटण तालुक्यातील 'मान्याची वाडी' या प्रगतिशील गावाने या ग्राम योजने अंतर्गत काम करून हे गाव विजेच्या बाबतील पूर्णपणे आत्मनिर्भर बनवले आहे. या गावाने आपली विजेची संपूर्ण गरज गावातच सौरऊर्जा निर्माण करून यशस्वी पाऊल टाकले आहे.

देवेंद्र फडवणीसांनी देखील राज्यात सौरऊर्जेच्या वापरला मोठी चालना दिलेली आहे.

वीजग्राहकांना 'पी.एम. सूर्याघर' योजने अंतर्गत राज्यातील निवासी व व्यावसायिक इमारतीवरील छतावर सौर पॅनेल्स बसवून वीजनिर्मिती करण्यास सरकार प्रोत्साहित करत आहे. त्यासाठी वीजग्राहकांना मोठ्या प्रमाणात थेट सरकारी अनुदाने (सबसिडी) देण्यात येत आहेत. छोट्या वीज ग्राहकांना देखील या अनुदानाचा लाभ घेता येतो. एका किलोवॅट साठी तीस हजार रुपये तर दोन किलोवॅट साठी साठ हजार रुपये एवढे अनुदान मिळते. त्यामुळे महिना तीनशे युनिट पर्यंत वीज वापरणाऱ्या ग्राहकांना जवळजवळ मोफत वीज मिळवण्याची आणि अतिरिक्त वीज विकन उत्पन्न मिळवण्याची संधी मिळत आहे. पी.एम. सूर्यावर योजना शहरी आणि ग्रामीण वीजग्राहकांसाठी उपलब्ध आहे. मुख्यमंत्री देवेंद्र फडवणीस यांच्या मार्गदर्शनाखाली महावितरणने 'सौरग्राम' ही एक महत्वाकांक्षी योजना हाती घेतली आहे. राज्यातील प्रत्येक जिल्ह्यात किमान दोन अशा शंभर गावांना विजेच्या बाबतीत आत्मनिर्भर कार्यकर्ण्याची ही ती योजना आहे. ग्रामीण भागातील गावांना





या गावातील प्रत्येक घरावर सूर्यावर मोफत वीज योजनेचा लाभ घेऊन सौर पॅनेल्स बसवली आहेत. त्यामुळे या गावातील सर्व गावकऱ्यांचे वीजबिल शून्य येते आणि त्यांना अतिरिक्त वीज महावितरणला विकून उत्पन्नाची संधी देखील मिळत आहे. विजेच्या बाबतीत आत्मनिर्भर झालेल्या दुसऱ्या गावाचे उदाहरण देता येईल ते म्हणजे खेड तालुक्यातील 'टेकवडी' हे गाव. हे गाव देखील सौर ऊर्जेद्वारे स्वतःची प्रगती करत आहे.

शासनाचे ग्रामीण भागाकडे विशेष लक्ष असून ग्रामीण भागातल्या शेतकऱ्यांना या आणि अशा अनेक योजनांचा फायदा देण्याचे राज्य सरकार आणि महावितरण यांनी ठेवले आहे. मुख्यमंत्री सौर कृषीवाहिनी योजनेच्या माध्यमातून सध्या राज्यात सुमारे दहा हजार मेगावॅट क्षमतेचा सौरऊर्जा निर्मितीचा प्रकल्प बसवण्यात येत आहे. हा जगातील सर्वात मोठा 'डिस्ट्रीब्युटेड रिन्यूएबल एनर्जी प्रकल्प आहे. सौर ऊर्जेची निर्मिती करून कृषीफीडर्स च्या माध्यमातून शेतीला दिवसा वीज पुरवठा करायचा अशी ही योजना आहे. माननीय मुख्यमंत्री देवेंद्र फडवणीस यांनी जून २०१७ मध्ये मुख्यमंत्री सौर ऊर्जा वाहिनी योजना सुरु केली. त्यातून २३४ कृषिवाहिन्यांवरील एक लाख

शेतकऱ्यांना दिवसा आठ तास वीज पुरवठा दिला जात आहे. या योजनांची कार्यवाही करताना अनेक अडचणींना सामोरे जावे लागते. अशा प्रकल्पांना सार्वजनिक जमिनी शोधून काढून त्या उपलब्ध करणे, प्रकल्प उभारणीसाठी निविदा (टेंडर्स) काढणे, आराखडे निश्चित करणे, वाढीव ऊर्जा निर्मीती निर्माण होतानाच आधीच्या अस्तित्वात असलेल्या वीज जाळ्यात सुधारणा करणे वगैरे आव्हाने असतात. प्रकल्पासाठी जमिनी उपलब्ध करण्यासाठी महसूल खात्याची मदत घ्यावी लागते. राज्याचा ऊर्जा विभाग आणि महावितरण हे धोरण निश्चिती आणि अंमलबजावणी यासाठी समन्वयाने काम करीत असतात. शेतकऱ्यांना कायमस्वरूपी आणि हक्काची सिंचन सुविधा अशा प्रकल्पातून उपलब्ध होते. एकदा सौर पंप बसवला की सौर पॅनल मधून २५ वर्षे अखंड वीजपुरवठा होतो. आगामी काही वर्षात राज्यातील शेतीच्या सिंचनासाठी संपूर्णपणे सौर ऊर्जा वापरता येऊ शकते. स्वयंपूर्णेतेच्या दृष्टीने हा एक ऐतिहासिक टप्पा ठरेल ही एक अभिमानाची बाब आहे. या संपूर्ण प्रक्रियेत महावितरण चा सहभाग आणि योगदान फार मोलाचं आहे.



'सर्व गोष्टीं शासनानेच कराव्या' अशी आम्हा नागरिकांची धारणा असते. शासन असो किंवा महावितरण हे त्यांच्या परीने कार्यरत असतातच, तथापि सजग नागरिक म्हणून आपलेही योगदान विकासगंगेत द्यायला हवे. राज्यसरकारच्या आणि महावितरणच्या ह्या अक्षय सौरऊर्जा निर्माण करण्याच्या प्रयत्नांना वीज ग्राहकांनी देखील सकारात्मक प्रतिसाद द्यायला हवा. सुरवातीला सौर पॅनल्स बसवताना येणाऱ्या खर्चाला वीज ग्राहक बिचकतात. त्यांना हा खर्च जास्तीचा वाटतो. पण एकदा सौर यंत्रणा बसवल्यावर वीजबिलातल्या बचतीचा विचार केल्यास हा सुरवातीला केलेला खर्च तीनचार वर्षातच भरून निघतो. त्यानंतर पुढील पंचवीस वर्षे फुकट वीज मिळत राहते. शिवाय सौरयंत्रणा पूर्णपणे देखभाल विरहित असतात. (फक्त ही बसवलेली सौर ऊर्जा पॅनेल्स ठराविक काळानंतर स्वच्छ करावी लागतात. अन्यथा अस्वच्छ पॅनेल्स मधन वीज निर्मिती कमी प्रमाणात होऊन त्याचा थेट परिणाम वीजबिलावर होतो.) साधारणपणे नऊ ते दहा स्क्रेअर मीटर आकाराच्या उघड्या जागेत किंवा छतावर एक किलोवॅट साठी सोलर पॅनल बसवता येतात. त्यामूळे घरावरील पत्रे, कौले, गच्चीवर, तसेच कारखान्यांच्या शेडवर रूफ टॉप सोलर पॅनल बसवून प्रत्येक ग्राहकाने आपली स्वतःची वीज निर्मिती करणे आवश्यक आहे. उंच इमारतीतील सामायिक वापरासाठी लागणारी वीज जसे लिफ्ट, वॉटर पंप्स, जिना आणि पार्किंग मधील दिवे यासाठी सौर ऊर्जा वापरून सामायिक वीज

बिल कमी करता येते, आणि त्यासाठी येणारा दार डोई खर्चही विभागला जाऊ शकतो.

महावितरण किंवा इतरही अस्तित्वात असलेल्या वितरण कंपन्यांमार्फत रूफ टॉप सौर यंत्रणा बसवून घेण्याची प्रक्रिया अत्यंत सोपी आणि पारदर्शक करण्यात आलेली आहे. मात्र या वितरण कंपन्यांनी निश्चित केलेल्या मान्यताप्राप्त एजन्सी मार्फतच वीज ग्राहकाला हे काम करून घ्यावे लागते. सौर यंत्रणा बसवून घेण्यासाठी दोन वेगवेगळ्या वेबसाईट्स ची मदत घ्यावी लागते.

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ह्या साईटवरून नेट मीटरिंग साठी अर्जाची पूर्तता करावी लागते. अर्थात वितरण कंपन्यांच्या मान्यताप्राप्त एजन्सीज हे काम सुलभ पद्धतीने करू शकतात.

शासनाच्या ह्या सौर ऊर्जेच्या योजनांना मूर्त स्वरूप देण्यासाठी महाराष्ट्रात महाराष्ट्र राज्य वीज वितरण कंपनीने (MSEDCL) मोठा पुढाकार घेतला आहे. मोफत सूर्यघर योजना वीज ग्राहकांपर्यंत पोहोचवण्यासाठी पुणे आणि पिंपरी चिंचवड शहरातील विविध भागांमध्ये डिजिटल सौर रथाच्या माध्यमातून हजारो वीजग्राहकां बरोबर महावितरण थेट संवाद साधत आहे. डिजिटल स्क्रिनचा वापर, योजनांचे सादरीकरण व माहितीपत्रकांद्वारे या निरनिराळ्या शासकीय सौर योजनांची माहिती देण्यात येत आहे. या योजनांचा मोठ्याप्रमाणात जागर करण्यासाठी महावितरण आणि महाराष्ट्र सोलर मॅन्युफॅक्चरर्स असोसिएशन (MASMA) यांच्या सहकार्याने मोठे भरीव काम करत आहे. यासाठी पुणे परिमंडळाचे मुख्य अभियंता श्री राजेंद्रजी पवार, उपकार्यकारी अभियंता श्री. संतोष पटनी व त्यांचे सहकारी विशेष परिश्रम घेत आहेत. पुणे शहरातील अनेक भागातल्या सोसायट्या, अपार्टमेंट्समधील नागरिकांशी महावितरणचे कर्मचारी आणि जनमित्रांद्वारे देखील संवाद साधण्यात येत आहे. महावितरणच्या या प्रयत्नांना वीजग्राहकांनी, विशेषतः सोसायटयांनीं प्रतिसाद दिला पाहिजे.

नागरिकांच्या सहकार्या शिवाय राज्य सरकार असो किंवा महावितरण असो या यंत्रणा सक्षमपणे व पूर्ण ताकदीने काम करू शकत नाहीत, हे आपण लक्षात घ्यायला हवे. थोडक्यात लोकसहभागा शिवाय कोणताही विकास कधीच होत नसतो. त्यामुळे वीजग्राहकांनी देखील आपापल्या छतावर सोलर पॅनल बसवून सौर ऊर्जा निर्मण करण्याचा प्रयत्न केला पाहिजे. त्यामुळे स्वतःच्या विकासाबरोबर देशाचाही विकास साधता येईल.

सोलर ऊर्जा, नेट मीटरिंग च्या अधिक माहितीसाठी एम.इ.आर.सी. च्या किंवा महावितरणच्या वेब-साईटला भेट द्या.

### NHPC commences operations for 107.14 MW unit of Karnisar solar project in Rajasthan

NHPC Limited has commenced operations for the 107.14 MW unit of the Karnisar solar power project in Bikaner, Rajasthan. This forms part of the company's 300 MW solar project at the site. The commissioned capacity achieved commercial operation on April 12, 2025, following successful trial runs completed on April 10. The project is connected to the interstate transmission system (ISTS), with initial injection of 31 MW starting in March 2025.

The commercial operation date (COD) for the remaining capacity will be announced in phases, with full commissioning targeted by August 31, 2025.

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# इकॅमच्या विविध विभागातील प्रमुख घडामोडी



Training session by Adani power for the Electrical Contractors of Mumbai regarding the new portal on Friday, 11 April 2025

मा. अरविंद भादिकर साहेब, संचालक (संचलन) महावितरण, मुंबई हे नाशिक येथे आले असता आपल्या संघटने तर्फ विविध विषयावर सकरात्मक चर्चा करण्यात आली व येत्या काही दिवसात त्यावर मार्ग काढावे अशी सूचना त्यांनी नाशिक कार्यालयातील अधिकारी यांना देण्यात आल्या त्यावेळेस संघटने तर्फे सचिन फरतडे, सुशील भुरे, संदीप शिंदे, समाधान पाटील, योगेश गायकवाड निलेश



धात्रक,किरण सातपुते सतीश मोरे, किरण गायकवाड,संजय कुऱ्हाडे,अमित जाधव, ब्रम्हे, अंकित पिंगळे, आशिष शहाणे. किशोर पंडित, मेहुल वाघ,शशिकांत दौंड, व ठेकेदार उपस्थित होते.

मा. श्री नितीन देशमुख साहेब यांचे पिंपरी चिंचवड विद्युत विभागात सहशहर अभियंता पदी पदोन्नती झाल्यामुळे आणि श्री दिलीप भोसले साहेब व सौ. दमयंती पवार मॅडम यांचे पिंपरी चिंचवड विद्युत विभागात कार्यकारी अभियंता पदी पदोन्नती झाल्यामुळे इलेक्ट्रिकल कॉन्ट्रॅक्टर असोसिएशन ऑफ महाराष्ट्र पिंपरी चिंचवड विभाग अध्यक्ष श्री सयाजी

पाटील सचिव श्री रमेश भालेराव खजिनदार श्री संजय कुमार सहसचिव श्री गजानन पेठ सांगळे व मुंबई मुख्य कार्यालयाचे



संचालक श्री विकास मगर व सर्व संचालक मंडळ श्री येसाजी भोसले, ऑल कॅब शांताराम झंवर यांच्यातर्फे सत्कार व अभिनंदन करतानाचे काही क्षणचित्र.

# **Bajel Projects wins major power transmission and substation contracts in India**

Bajel Projects Limited, wholly owned subsidiairy of the Bajaj Group, has received large orders worth over Rs 4 billion for key power transmission projects in India by Power Grid Corporation of India Limited (Powergrid) and Inergy Infra Private Limited. Powergrid awarded Bajel a contract, through its partner company, Kurnool-IV Power Transmission Limited, to build a 765 kV double circuit transmission line from Kurnool IV to Kurnool III PS in Andhra Pradesh. This is part of a larger system to support 4.5 GW of renewable energy. The work is expected to finish in 23 months. In addition, Bajel got two more orders from Inergy Infra Private Limited for a solar-wind hybrid power plant project in Beed, Maharashtra. These include building a 400 kV transmission system and a new 400 kV substation. Both of these projects are expected to be completed within 12 months.

# NPCIL to explore JV model with central PSUs and states for nuclear power development

Reportedly, Nuclear Power Corporation of India Limited (NPCIL) is exploring a joint venture (JV) model with other central public sector undertakings (PSUs) and state governments to develop nuclear power projects across the country. Indian Oil Corporation, which already has a JV with NPCIL and Neyveli Lignite Corporation, and Indian Railways have expressed interest in participating in these projects. Additionally, several state governments are keen to hold minority stakes to support the development of nuclear infrastructure.





# "We Connect" – A Technical & Networking Meet for Raychem RPG Products

On 21st March 2025, an engaging contractor meet titled "We Connect" was successfully conducted at The Fern Residency, Bhiwandi-Pimplas, jointly organized by Krishaa Engineers, Kalyan, Raychem RPG, and ECAM Thane Chapter.

The event witnessed the enthusiastic participation of 30+ contractors from Kalyan, Dombivli, and Ambernath regions. It served as a dynamic platform to showcase Raychem RPG's latest innovations and product capabilities, including:

- Raychem Cable Accessories
- Solar Connectors
- Touch Roof Connectors
- Safety Products
- Insulation & Protection Solutions
- Connector & Fittings

The event began with a traditional lamp-lighting ceremony led by Shri Nilesh Tivramkar, Chairman – Thane Region, ECAM. A respected industry leader, Shri Tivramkar has been instrumental in driving regional growth through his leadership, deep technical insight, and unwavering commitment to the electrical contracting community.

Following the inauguration, insightful presentations and product displays set the tone for a meaningful exchange of ideas. The Raychem RPG team, comprising Mr. Niteen Kashyap, Mr. Naushad Ansari, Mr. Nikhil Nesari, and Mr. Akif Qader, interacted with the attendees and addressed key technical queries, market trends, and application-based solutions.

The Krishaa Engineers team, including Ms. Rupali Malvade, a one-stop solution provider for Raychem offerings in this region, actively engaged with participants and responded to their queries, ensuring a smooth and informative experience for all.

This interactive session not only strengthened technical understanding but also fostered valuable networking between contractors and Raychem partners. The meet reflected the shared commitment to building Reliable Connections—always.

We extend our heartfelt thanks to all participants for their enthusiastic presence and look forward to continued collaboration in future initiatives.



ठाणे विभाग मार्फत २१/०३/२०२५ रोजी Raychem RPG The फेर्न रेसिडेन्सी, भिवंडी पिंपळास येथे सेमिनार आयोजित करण्यात आला होता.

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# CEA approves record 7.5 GW pumped storage projects in FY2024–25

The Central Electricity Authority (CEA) has approved detailed project reports (DPRs) for six hydro pumped storage projects (PSPs) totalling 7.5 GW in 2024–25 which will mark the highest annual approvals to date. The approved projects include Upper Indravati (600 MW) in Odisha, Sharavathy (2,000 MW) in Karnataka, Bhivpuri (1,000 MW) and Bhavali (1,500 MW) in Maharashtra, MP-30 (1,920 MW) in Madhya Pradesh, and Chitravathi (500 MW) in Andhra Pradesh.

The CEA noted that private sector participation in the

# MNRE notifies guidelines for prototype wind turbine testing

The Ministry of New and Renewable Energy (MNRE) has issued revised guidelines for installation of prototype wind turbine models. The revised guidelines allow prototype wind turbines a maximum of three years to complete type testing and obtain certification from internationally accredited agencies. The guidelines form part of an updated framework for prototype wind turbine installations, to be implemented by the National Institute of Wind Energy (NIWE), Chennai. As per the draft, prototype models will be installed solely for the purpose of type testing. A recommendation letter from NIWE will be issued to initiate testing, and a maximum period of three years will be allowed to obtain the type certificate. The prototype certificate will remain valid during this period. In case of revisions to an existing prototype, a new recommendation letter must be obtained, and testing must be completed within the validity of the updated certificate. The prototype certificate itself will have a maximum validity of three years, with possible extensions. The draft also mandates regular operation and maintenance (O&M) of prototype turbines. Certification agencies must issue annual reports confirming O&M compliance, failing which disconnection from the grid may occur. All prototype wind turbines must be commissioned within 18 months of receiving the NIWE recommendation letter. Y

PSP segment is growing steadily. With the help of selfidentified projects, the estimated PSP potential in the country has now crossed 200 GW and is increasing monthly. Looking ahead, the CEA plans to approve at least 13 PSPs totalling 22 GW in 2025–26. Most of these are expected to be commissioned within four years, and no later than 2030.

Currently, eight PSPs with 10 GW capacity are under construction, DPRs for three PSPs (3 GW) have already been concurred, and 49 projects of 66 GW are under survey and investigation. Developers are expected to finalise DPRs for these in the next two years.

![](_page_50_Picture_8.jpeg)

42, Taikal Wadi, Gala No. 11, Harguru Nivas, Opp. Allanabad Bank, Manorama Nagarkar Marg, Matunga (W), Mumbai - 400 016. ४२, टायकलवाडी, गाला नं. ११, हरगुरु निवास, अलाहाबाद बैंक के सामने, मनोरमा नगरकर मार्ग, माटुंगा (प), मुंबई ४०० ०१६.

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