




3rd Edition Heat Rate Efficiency in Thermal Power Plants

Empowering sustainability through enhanced energy
efficiency

 NOVEMBER 30TH & DECEMBER 1ST 2023

 HYATT CENTRIC JANAKPURI NEW DELHI

 TWO DAYS

 PHYSICAL CONFERENCE



About The Conference

Welcome to the 3rd edition of Heat Rate Efficiency in Thermal Power Plants – an exclusive conference dedicated to exploring innovative strategies, technologies, and best practices for enhancing heat rate efficiency within India's thermal power sector. Join us for this insightful conference where experts, professionals, and thought leaders will converge to share their knowledge and experiences.

The conference aims to foster knowledge sharing, collaboration, and dialogue on cutting-edge technologies, strategies, and best practices that contribute to improving heat rate in thermal power plants. By bringing together experts from various disciplines, it seeks to explore and discuss innovative approaches that optimise heat rate, reduce emissions, and increase the overall sustainability of thermal power generation.

Why should you attend?

Expert insights: Gain valuable insights from industry experts, engineers, and researchers who have a deep understanding of heat rate efficiency optimisation in thermal power plants.

Cutting-edge technologies: Discover the latest advancements and technologies driving improvements in heat rate efficiency, from innovative monitoring systems to sustainable fuel sources.

Cogeneration and combined heat and power (CHP) systems in thermal power plants: The simultaneous production of electricity and useful heat, highlighting the advantages, challenges, and best practices for maximising energy efficiency through these integrated systems.

Interactive workshops: Participate in hands-on workshops and interactive sessions that delve into the practical aspects of heat rate optimization, problem-solving, and decision-making.

Networking opportunities: Connect with professionals, peers, and potential collaborators in the thermal power industry. Share your experiences, ideas, and establish valuable contacts.

Best practice sharing: Learn about successful case studies and best practices implemented in thermal power plants across India, showcasing real-world results.

Optimal operation and maintenance strategies for energy efficiency enhancement: Condition-based maintenance, predictive maintenance, operational optimisation, and performance monitoring techniques that help reduce downtime, enhance equipment reliability, and improve overall plant efficiency.

Policy and regulations: Understand the current regulatory landscape and policy initiatives shaping the thermal power sector's future. Explore how efficiency improvements align with environmental goals.

Who Should Attend?

- ◆ Central And State Genco
- ◆ Captive Power Plant
- ◆ Cooling Tower Experts
- ◆ Central And State Pollution Control Boards
- ◆ Power Plant O&M Providers
- ◆ Other Industrial Plants
- ◆ Research And Development Organisations
- ◆ Independent Power Plants
- ◆ FGD Technology Providers
- ◆ Power Plant EPC Contractors
- ◆ Policy Makers And Regulators Agencies
- ◆ Project Management Consultancy
- ◆ Environmental Consulting Firms

The two-day conference will delve into a range of captivating topics, addressing the latest advancements and challenges in energy efficiency. It will inspire new ideas, facilitate networking opportunities, and foster collaborations that will drive the transformation of thermal power plants into more energy-efficient and environmentally-friendly entities. The conference will cover a variety of discussion points including:

Understanding Heat Rate Efficiency in Thermal Power Plants: A foundational understanding of heat rate efficiency, explaining its significance and how it impacts the overall performance of thermal power plants.

Innovations in Heat Recovery Systems and Waste Heat Utilisation: Understand the importance of efficient heat recovery systems and the utilisation of waste heat in thermal power plants. Discover advancements in heat exchangers, organic Rankine cycles, and other techniques that maximise the extraction and utilisation of waste heat, improving energy efficiency and reducing environmental impact.

Retrofitting and Modernisation: Learn about approaches used in retrofitting and modernising existing thermal power plants to enhance their energy efficiency. Explore technology upgrades, improvements in combustion processes, and equipment optimisation.

Advanced Turbine Technologies: Discover innovative turbine designs, materials, cooling techniques, and blade coatings. These technologies enhance turbine efficiency, increase power output, and reduce maintenance requirements.

Technological Innovations for Heat Rate Optimisation: Explore various technological innovations specifically designed to optimise heat rate efficiency in thermal power plants.

Integration of Renewable Energy: Examine the integration of renewable energy sources into thermal power generation. Learn how this diversification contributes to sustainability and efficiency.

Case Studies: Successful Heat Rate Improvement Projects: Real-world case studies highlighting successful projects that have significantly improved heat rate efficiency in thermal power plants.

Advanced technologies for improved energy efficiency in thermal power plants: Explore cutting-edge technologies such as advanced sensors, automation, and control systems. Learn how these innovations significantly enhance energy efficiency, reduce energy losses, and optimise plant operations.

Optimal Operation and Maintenance Strategies: Delve into condition-based maintenance, predictive maintenance, operational optimisation, and performance monitoring techniques. These strategies help reduce downtime, enhance equipment reliability, and improve overall plant efficiency.

Best Practices in Boiler Efficiency and Combustion Optimisation: Gain insights into advancements in boiler design, combustion control systems, emissions reduction techniques, and fuel flexibility. All these aspects are aimed at maximising thermal efficiency and reducing environmental impacts.

Artificial Intelligence for Plant Efficiency: Learn how integrating AI technologies into thermal power plants can optimise operations, reduce energy losses, and enhance heat rate efficiency. Understand how AI aligns with India's focus on energy efficiency and sustainability in the thermal power sector.

Fuel Management Strategies and Fuel Diversity: Discuss strategies for managing fuel resources efficiently and diversifying fuel sources to enhance sustainability and reduce environmental impact.

Operational Excellence and Maintenance Practices: Operational excellence principles and maintenance best practices that contribute to improved plant efficiency and reduced downtime.

Policy Implications and Future Outlook: The current policy landscape and future outlook for the thermal power sector, with a focus on how efficiency improvements align with environmental goals.

Key Topics

- **Understanding Heat Rate Efficiency In Thermal Power Plants**
- **Fuel Management Strategies And Fuel Diversity**
- **Operational Excellence And Maintenance Practices**
- **Case Studies: Successful Heat Rate Improvement Projects**
- **Policy Implications And Future Outlook**
- **Technological Innovations For Heat Rate Optimization**
- **Integration Of Renewable Energy In Thermal Power Generation**
- **Artificial Intelligence Improves Plant Efficiency And Flexibility**
- **Environmental Sustainability And Emission Reduction Efforts**

In The News

Recently, there have been significant advancements in energy efficiency in thermal power plants in India.

By the year 2030, reports indicate that renewable energy (RE) is projected to surpass all other sources and become the dominant contributor to the power generation capacity in India.

Regarding ownership, the majority share of power generation capacity was held by the private sector, making up approximately 50.6 per cent. On the contrary, the Central and state governments accounted for 25.4 per cent and 24 per cent, respectively, of the power generation capacity as of 2023.

As of April 2023, India had an installed power generation capacity of over 416,091 MW (megawatts). The breakdown of this capacity was approximately 51 per cent from coal-based power, 5.9 per cent from natural gas, 1.6 per cent from nuclear energy, 11.26 per cent from hydropower, and 30.17 per cent from renewable energy (RE) sources.

Awards

**3RD NATIONAL
ENERGY
EFFICIENCY
AWARDS 2023**

THE CEE NATIONAL ENERGY EFFICIENCY AWARDS 2023

It has been meticulously crafted to highlight and honor the exceptional efforts of organizations that have harnessed pioneering energy efficiency measures. With a keen focus on operational parameters such as Peaking Plant Load Factor, Secondary Oil Consumption, Auxiliary Power Consumption, and Station Heat Rate, these awards shine a spotlight on those who have gone above and beyond to revolutionize efficiency across the value chain.

Key Highlights



RECOGNIZING EXCELLENCE

The awards seek to identify and celebrate the best in industry endeavours', encouraging a culture of continuous improvement and innovation.



OPERATIONAL FOCUS

By considering critical operational parameters, such as Peaking Plant Load Factor, Secondary Oil Consumption, Auxiliary Power Consumption, and Station Heat Rate, these awards emphasize tangible impacts on efficiency.



DRIVING COMPETITION

The awards aim to foster healthy competition among stakeholders, motivating them to raise their standards and excel in energy efficiency.



INSPIRING CHANGE

By highlighting success stories and transformative measures, these awards inspire others to adopt similar strategies and contribute to a more energy-efficient future.

We encourage you to consider nominating your organization for the National Energy Efficiency Awards 2023 if you have implemented remarkable energy efficiency measures that have led to significant improvements in your operational parameters. This is your chance to showcase your commitment to sustainability, innovation, and operational excellence on a national platform.

National Energy Efficiency Winners

2021

- Adhunik Power & Natural Resources Limited
- CSPGCL – Dr. Shyama Prasad Mukherjee TPS
- DB Power Ltd
- Dalmia Cement (Bharat) Limited – Belgaum CPP
- DVC – Mejia TPS
- GSECL – Gandhinagar TPS
- GSECL Ukai TPS
- GSECL Sikka TPS
- GSECL Wanakbori TPS
- GSECL Utran TPS
- Hindustan Zinc Ltd – Dariba
- Hindustan Zinc Ltd – Chanderiya
- Hindustan Zinc Ltd – Zawar
- JHABUA POWER LTD
- Jaypee Nigrie Super Thermal Power Project
- JSW Energy (Barmer) Limited
- JSW Energy Ltd Vijayanagar Power Station
- Mahagenco – Koradi TPS
- Mahagenco – Nashik TPS
- Mahagenco – Bhusawal TPS
- Mahagenco – Chandrapur STPS
- Mahagenco – Parli TPS
- NTPC Ltd – Vindhyachal STPS
- NTPC Ltd – Barh STPS
- Orient Cement Ltd – Chittapur CPP
- Orient Cement Ltd – Devapur CPP
- Prayagraj Power Generation Company Ltd
- Singareni Thermal Power Plant
- TATA Power Company Ltd – JOJOBERA Power Plant
- Vedanta Ltd 135MW Jharsuguda
- Vedanta Ltd 600 MW Jharsuguda

2022

- Adhunik Power & Natural Resources Limited
- Hindustan Powerprojects Private Ltd
- JINDAL POWER LIMITED
- Jaypee Nigrie Super Thermal Power Project
- Jhabua Power Ltd
- JSW Energy Ltd Vijayanagar Power Station
- JSW Energy (Barmer) Limited
- JSW BPSL Ltd
- JINDAL STAINLESS LTD
- Mahagenco Koradi Thermal Power Station
- NTPC Ltd – Singrauli STPS
- NTPC Ltd – Simhadri STPS
- NTPC Ltd – Gadarwara STPP
- NTPC Ltd – MOUDA STPP
- NTPC Ltd – Barh STPS
- National Aluminium Company Ltd
- TATA Power Company Ltd – Jojobera Power Plant
- TATA STEEL LONG PRODUCTS LTD
- Talwandi Sabo Power Limited (TSPL)
- Vedanta Limited Jharsuguda Odisha – 9x135 MW CPP
- Vedanta Limited Jharsuguda Odisha – 4x600 MW TPP

Categories

IPP – COAL ▶

- Excellent Energy Efficient Unit – COAL Below 250 MW IPP
- Excellent Energy Efficient Unit – COAL 250 – 500 MW IPP
- Excellent Energy Efficient Unit – COAL Above 500 MW IPP

IPP – LIGNITE ▶

- Excellent Energy Efficient Unit – Lignite Below 125 MW IPP
- Excellent Energy Efficient Unit – Lignite 125 – 250 MW IPP
- Excellent Energy Efficient Unit – Lignite Above 250 MW IPP

IPP – CCGT ▶

- Excellent Energy Efficient Unit – CCGT Below 125 MW IPP
- Excellent Energy Efficient Unit – CCGT Above 125 MW IPP

CPP ▶

- Excellent Energy Efficient Unit – COAL Below 50 MW CPP
- Excellent Energy Efficient Unit – COAL 50 – 135 MW CPP
- Excellent Energy Efficient Unit – COAL Above 135 MW CPP
- Excellent Energy Efficient Unit – Lignite CPP
- Excellent Energy Efficient Unit – CCGT CPP

Specialized Award Categories

Public Sector

National Energy Efficient Plant of the Year

National Energy Efficient Team of the Year

National Energy Efficient Leader Of The Year

Excellent Plant Load Factor

Excellent Energy Efficient Waste Heat Recovery Plant (WHR)

Renewable Integration and Co-generation Plant of the Year

Efficient Fuel Utilization Plant of the Year

Private Sector

National Energy Efficient Plant of the Year

National Energy Efficient Team of the Year

National Energy Efficient Leader Of The Year

Excellent Plant Load Factor

Excellent Energy Efficient Waste Heat Recovery Plant (WHR)

Renewable Integration and Co-generation Plant of the Year

Efficient Fuel Utilization Plant of the Year

CEE Energy Efficiency Award Nominations 2023 – Key Dates



September 1st 2023
Start of Process



November 4th 2023
Nomination Closes



December 1st 2023
Announcement of Winners

Sponsorship

A sure fire way for your firm to emerge as a thriving leader in this proliferation industry would be to sponsor CEE's Heat Rate Efficiency 2023 conference. This will successfully leave a powerful and lasting brand impression in the minds of pivotal decision-makers.

Promotion

Our promotional and marketing campaigns will help you garner publicity.

Potential Clientele

Gain access to our classified delegate list that is so painstakingly and diligently created.

Key Speakers

Receive the honor of addressing an audience filled with industry decision-makers and leading executives as the primary speaker.

Permanent Reminders

Documentation at the conference will generate lasting mementos of your product or services.

Outline Yourself as a Leader

Event marketing collateral will promote your corporate brand, logo, and profile. This will help you establish yourself as an industry leader.

Networking

Virtual meet and greets and socializing with government officials, industry leaders, specialists and senior level delegates.

Window of Opportunity

This offers a chance for your administrators to discover your role better and uncover new business opportunities in the sector.

Visibility

Our partners will provide brand building possibilities, higher exposure and so much more.

Type of Sponsor

Generator (Principal Sponsor)

INR 800,000 / USD 11,000

- ✓ Auditorium Stage Sponsor Branding
- ✓ Thanking Announcements
- ✓ Branding On Conference Website
- ✓ 8 Delegate Passes
- ✓ Panel Discussion Moderator
- ✓ 1 Award Nomination
- ✓ Sponsor Presentation Opportunity – Day 1
- ✓ Massive Branding Space In Lobby
- ✓ Branding On Login Page – Day Of Event
- ✓ Emailer Branding – For All Delegate Registration
- ✓ Lobby Sponsor TV AV (With Audio & Visual)
- ✓ Walkway Welcome Sponsor – Flag Branding
- ✓ Welcome Video By Sponsor
- ✓ Sponsor Info Downloadable Document In Lobby

Terawatt (Powering Sponsor)

INR 650,000 / USD 8700

- ✓ Auditorium Stage Sponsor Branding
- ✓ Thanking Announcements
- ✓ Branding On Conference Website
- ✓ 6 Delegate Passes
- ✓ Panel Discussion Panellist
- ✓ Sponsor Presentation Opportunity – Day 2
- ✓ Branding Space In Lobby
- ✓ Branding On Login Page – Day Of Event
- ✓ Emailer Branding – For All Delegate Registration
- ✓ Lobby Sponsor TV AV (With Audio & Visual)

Gigawatt (Knowledge Sponsor)

INR 550,000 / USD 7500

- ✓ Auditorium Stage Sponsor Branding
- ✓ Thanking Announcements
- ✓ Branding On Conference Website
- ✓ 4 Delegate Passes
- ✓ Panel Discussion Panellist
- ✓ 1 Award Nomination
- ✓ Branding Space In Lobby

Megawatt (Supporting Sponsor)

INR 375,000 / USD 5000

- ✓ Auditorium Stage Sponsor Branding
- ✓ Thanking Announcements
- ✓ Logo On Conference Website
- ✓ 2 Delegate Passes
- ✓ Panel Discussion Panellist

Kilowatt (Associate Sponsor)

INR 300,000 / USD 4000

- ✓ Auditorium Stage Sponsor Branding
- ✓ Thanking Announcements
- ✓ Logo On Conference Website
- ✓ 2 Delegate Passes

Mr Sachin Chavan
Head Corporate Alliance &
Partnerships

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Registration Process

Online Registration

To participate as Delegates / nominate for Awards / be a Speaker fill and submit online form from the links below.



Receive Invoice

We will email you an invoice along with necessary required documents for processing the payment. The original invoice shall be sent to your postal address.



Make Payment

Make online payment via our secured payment gateway using your Credit Card or Bank Transfer or send Cheque / DD to our postal address.

Delegate Registration

- ✓ Indian Delegate
- ✓ INR 17500 + 18% GST
- ✓ Overseas Delegate
- ✓ USD 300 Per Delegate
- ✓ Group Discount
- ✓ 5% For 3+ Participants
- ✓ 10% For 5+ Participants

Award Nomination

- ✓ Award
- ✓ INR 28000 + 18% GST
- ✓ Overseas Company
- ✓ USD 700 Per Category
- ✓ Category Discount
- ✓ 5% For 2+ Categories
- ✓ 10% For 5+ Categories

Speaker Registration

- ✓ Indian Speaker
- ✓ INR 50,000 + 18% GST
- ✓ Overseas Speaker
- ✓ USD 800

*Please Note

- For each Award category, only one participant is permitted.
- In case additional participants (of existing Award nominee) who wish to attend the event, will be charged a discounted price of INR 15,000/- per participant.
- In each category, only 5 nominations are permitted.
- Only the first 5 applications will be eligible for consideration.
- Accurate participant information and details must be provided during registration.
- The online registration is considered final, and no cancellations will be allowed once the registration is completed.
- Successful online registration will result in a confirmation sent to the provided email address.
- In case of technical issues with the online registration system, participants are encouraged to contact support (+ 91 98214 19110) for assistance.

Venue

➤ Hyatt Centric Janakpuri New Delhi



Discover the perfect venue for your next business meeting, social gathering, at a leading luxury hotel conveniently located in the heart of Janakpuri, West Delhi. Connect, synergise, and let your creative juices flow or host your dream wedding in an inspiring setting at Hyatt Centric Janakpuri New Delhi, which offers over 52,000 square feet of customisable event space for every occasion



Organized By



Council of Enviro Excellence

About Us

Council of Enviro Excellence [CEE] is an autonomous, national level, non-government, not for profit initiatives organization, focusing on public interest, research and advocacy on the issues related to energy sector.

CEE provides a platform for power producers & technology providers in the sector to showcase various case studies, best practices, innovations, etc.

This is done by executing National and International conferences, workshops, and bespoke events based on research and guided by content.

Contact Us

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