

14th Annual Conference on

MANAGING COST OF ENERGY: INCREASING ENERGY EFFICIENCY & PROFITABILITY

May 22-23, 2017, Le Meridien, New Delhi



Power

Conservation

Captive
Power

Trading
Options

Reducing
Consumption

Smart
Procurement
Strategies

Renewables

Organisers:

POWERLINE

Indian
Infrastructure

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INDIAN ENERGY EXCHANGE
India's No.1 Power Exchange

MANAGING COST OF ENERGY: INCREASING ENERGY EFFICIENCY & PROFITABILITY

Mission

- Energy costs comprise the highest share in total production costs for most industries and form an important avenue for organisations to reduce their total cost of production. Some of the measures being adopted by industries to manage their energy costs include use of energy efficient equipment, smarter power procurement strategies and change in the energy mix.
- With the aim of reducing their energy consumption, industries have been installing new energy efficient equipment and also retrofitting various processes. It has been seen that even though energy efficient technologies entail higher capital costs, the energy savings accrued during their lifetime lead to significant returns.
- Energy intensive industries such as chemicals, cement, iron and steel, and oil refineries are employing interventions such as chiller optimisation, flue gas recovery, waste heat recovery, and installation of variable frequency drives on pumping systems to improve their energy efficiency. Apart from these measures, industries are also increasingly optimising on operations and maintenance practices to reduce their energy consumption. These include pre-heating of fuel and using the less critical equipment during off-peak hours.
- The PAT scheme has been one of the key regulatory initiatives taken by the government to reduce energy consumption in energy intensive industries. In the first cycle of the scheme (2012-13 to 2014-15), savings of about 8.67 million tonnes of oil equivalent (mtoe) were achieved, more than the targeted savings of 6.68 mtoe. Further, it is estimated that the scheme led to a reduction of 31 million tonnes in CO₂ emissions. The CERC approved the procedure for transaction of Energy Saving Certificates (ESCerts) in February 2017. The trading is expected to start from April 2017.
- The second cycle of PAT (2016-17 to 2018-19) commenced in April 2016 and has an expanded scope in terms of the sectors covered (11 against 8 in PAT-I) and the number of designated consumers (621 consumers in PAT-II against 478 in PAT-I). The new sectors include refineries, railways and electricity distribution companies. The targeted energy savings at the end of PAT-II are estimated at 8.86 mtoe.
- Various state electricity regulatory commissions have also mandated energy audits for HT industrial consumers. Energy audits help in pursuing comprehensive energy programmes by assessing the overall energy consumption pattern and identifying potential energy saving measures.
- Power procurement by industrial consumers through power exchanges also provides an attractive option for managing their energy demand and costs. The power in the spot market has been available at prices much lower than the tariffs charged by the discoms even after considering cross subsidy surcharge to be paid by open access consumers. The average price of electricity bought by open access consumers in 2015-16 was about Rs 2.60 per unit. Power procured by open access industrial consumers through power exchanges has increased from 4.1 BUs in 2010-11 to 20.36 BUs in 2015-16.
- A number of industries have also set up captive power plants, mainly for reliable power supply and uninterrupted operations. Traditionally, these have been based on coal, gas and diesel. More recently, industries have started renewable energy-based plants to meet their captive needs. By diversifying their energy mix, industries stand to reduce their energy costs by procuring power from the cheapest available source.
- Application of combined heat and power (CHP) or cogeneration has also increased in industries in India. It improves fuel efficiency by recycling the residual heat. These systems function as back-up power generation plants and can also be connected to the grid for selling the excess electricity generated.
- **The mission of this conference is to provide a platform to identify and discuss demand side management and energy cost reduction measures for industries through various efficiency measures as well as power sourcing strategies. The conference will also showcase best practices and energy efficient projects across industries.**

Target Audience

- | | | | |
|---------------------------------------|--------------------------------------|--|-------------------------------|
| - PAT designated consumers | - State electricity boards | - Wind power developers | - Technology providers |
| - Captive plant operators | - Gencos, transcos and discoms | - Energy management consultants | - Equipment manufacturers |
| - Independent power producers | - Power trading companies | - Research and development organisations | - HVAC and lighting providers |
| - HT consumers | - Renewable energy service providers | - Consultancy organisations | - Equity analysts |
| - Industrial development corporations | - Solar power developers | | - Financiers/Investors, etc. |

The conference will be particularly useful for finance, operations, planning and energy managers from organisations in the cement, iron, steel, sugar, textile, tyre, fertiliser, paper/pulp, aluminium, chemical, railways, oil-refineries, petrochemical, thermal power plants, and other power-intensive industries. It will be also useful for managers in the power sector who cater to these organisations.

Previous Participants

The organisations that have participated in our previous conferences include: ABB, ACC, Accenture, Acciona, Adani Power, Aditya Birla Management, Air Liquide, Ambuja Cement, AP Paper, Apollo Tyres, Arvind Mills, Asahi Glass, Atlas Copco, Bajaj Hindustan, BALCO, Ballarpur Industries, Bannari Amman, BEE, BHEL, Bhiwani Textiles, Birla Tyres, BKT Industries, Bosch, BPCL, Britannia, Ceat, Century, CESC, Chambal Fertilisers, Chennai Metro Rail, Cipla, CMS, Conzerv, Coromandel International, Cummins, Cybermotion Technologies, Dalkia Energy, Dalmia Cements, Deepak Fertilisers, DLF, DPSC, DSCL, DVC, ETAMation Insights, Electrosteel Castings, Emco, Essar Oil, Emergy, Essar Power, Essar Steel, FL Smidth, GAIL, Ginni Filaments, Glaxosmithkline, GNFC, GMR, GPCL, Grasim, Grundfos, GSECL, GSPC, Gujarat Alkalies and Chemicals, Gujarat Glass, HEG, Hero Honda, HCL Infosystems, Hindalco, Hindustan Copper, Hindustan Paper, HUL, Hindustan Zinc, Honeywell, Honda Sell, HMEL, HPCL, HPGCL, HSIDC, HWB, ICF, IFFCO, IISCO, IEX, Indo Rama Synthetics, Indus Towers, IMFA, IPCA, ISGEC, IOCL, ITC, Jaypee, JCB, JFE Engineering, JK Cement, JK Tyre, Johnson Controls, J P Mukherji & Associate, JSPL, JSW Steel, JSW Trading, Kanoria Chemicals, KCP Sugars, Kennametal, KOEL, KPMG, KRIBHCO, Lafarge, Lakshmi Machine Works, L&T, LNJ Bhiwara, Mahindra & Mahindra - Nagpur, Meenakshi Energy, Mawana Sugar, McKinsey, Mecon, MIDC, Minda Group, Moser Baer, MRF Tyre, MITCON, MSP Steel & Power, Mysore Paper, NALCO, NED Energy, NEPCO, Nestle, NCC, NFL, NMDC, NTPC, Oil India, Orm Metals, ONGC, PFC, Phillips Carbon Black, Pipavav Energy, Polyplex, PSL, PTC, PwC, Raymond, RIL, Rolls Royce, Ruchi Group, RP-SG Group - Haldia Energy, Sakthi Sugars, Saurashtra Cement, Schneider Electric, Siemens, SGS India, Shell, Serum Institute, Singareni Collieries, Sopra India, SKF, SPIC, SREI, SRF, Sterlite, Surya Roshni, Suzlon Energy, Tata Chemicals, Tata Motors, Tata Power, Tata Power Trading, Telangana State Genco, Tata Steel, TCS, Thermax, TMEIC, Torrent Power, Toshiba, Turbomach, Ultratech Cement, Vendanta, Vardhaman, Wartsila, Welspun Energy, Zamil Air Conditioners, etc

AGENDA/STRUCTURE

ENERGY EFFICIENCY STANDARDS

- ❖ What are the various strategies that industries can adopt for energy efficiency?
- ❖ What are the industry best practices?
- ❖ What are the key challenges?

FOCUS ON GOVERNMENT INITIATIVES

- ❖ What have been the achievements of PAT-I? What are the key learnings?
- ❖ What is the current status of PAT-II? What are the new sectors/DCs added?
- ❖ What are the targets under this cycle?
- ❖ What have been the other major government initiatives to enhance energy efficiency?
- ❖ What have been the key initiatives under the EEPF programme?

FUEL MARKET SCENARIO AND OUTLOOK

- ❖ What is the market scenario (demand, supply, pricing) with respect to coal, gas and oil?
- ❖ What is the outlook?
- ❖ What are the fuel cost management strategies and options for industries?

GRID POWER TARIFFS

- ❖ What have been the grid power tariff trends for industrial consumers?
- ❖ What are the factors influencing the trend in industrial tariffs?
- ❖ What is the future outlook?

CAPTIVE POWER OPTIONS

- ❖ What are the cost economics (capex/opex) of captive power technologies?
- ❖ How does the cost of captive power generation compare with that of grid power?
- ❖ To what extent do the emerging fuel market trends influence captive power economics?

RENEWABLE ENERGY OPTION

- ❖ How do renewables fare in the overall energy mix of the country?
- ❖ What are the cost economics of solar PV and wind power projects?
- ❖ What is the capacity outlook for the solar and wind power segments? What are the key risks and challenges?

POWER TRADING OPTIONS

- ❖ What has been the industry's experience in utilising the short-term power market to manage costs?
- ❖ What have been the trends in costs for procurement through this route?
- ❖ What is the trend in the sale of surplus power by industries in the trading market?

FOCUS ON ESCerts

- ❖ What are the key terms and conditions for the exchange of ESCerts?
- ❖ How many certificates have been issued so far?
- ❖ What is the outlook? How are the power exchanges preparing for the trading of these certificates?

EMERGING TECHNOLOGY OPTIONS

- ❖ What are some of the emerging/new technologies (cogeneration, waste heat recovery, etc.) for enhancing energy efficiency?
- ❖ What are the trends in the adoption of these technologies? What has been the experience so far?
- ❖ What have been the key challenges?

ENERGY SAVING THROUGH EFFICIENT PUMPS

- ❖ What are the key solutions being adopted for energy efficient pumps?
- ❖ What are the industry best practices?
- ❖ What are the challenges?

FOCUS ON ENERGY EFFICIENT MOTORS AND DRIVES

- ❖ What are the key industry requirements for industrial drives and motors?
- ❖ What are the emerging trends in energy efficient drives (ASDs, VFDs, etc.) and motors? What have been the efficiency gains from these?
- ❖ What are some of the best practices/case studies in reducing the energy costs associated with these?

ENERGY SAVING THROUGH HVAC AND LIGHTING

- ❖ What are the key solutions being adopted for improving the energy efficiency of buildings through heating, ventilation and air conditioning?
- ❖ What are the key solutions for energy efficient lighting?
- ❖ What are the best practices?
- ❖ What are the challenges?

DESIGNATED CONSUMER PERSPECTIVE

- ❖ What are the key focus areas for energy efficiency in these industries?
- ❖ What are the strategies being adopted by industry players to meet the energy efficiency targets?
- ❖ What are the best practices? What can be learnt from their experience?

Case studies from various industries: Thermal power plants; Metallurgy (iron and steel, aluminum, foundries, etc.); Sugar, paper and pulp; chemical, petrochemical and fertiliser; Buildings (commercial, industrial, government, institutional); Cement; Railways; Oil refineries; Other industries (textiles, automobiles, tyres, etc.)

Organisers

The conference is being organised by **India Infrastructure Publishing**, a leading provider of information on the infrastructure sectors through magazines, newsletters, reports and conferences. The company publishes **Power Line** (the premier magazine for the Indian power sector) and **Renewable Watch** (which covers the entire spectrum of renewable energy) and **Indian Infrastructure**. It also publishes a series of research reports, including **Industrial and Commercial Grid Power Market in India**, **Captive Power in India**, **Power Sector in India: Sector Trends, Market Outlook and Future Projections**, **Solar Power in India**, **Wind Power in India** and **Power Equipment Market in India** as well as the **Power Line Directory and Yearbook** and **weekly newsletter on the power sector**.

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Two delegates	40,000	6,000	46,000	767
Three delegates	55,000	8,250	63,250	1,054
Four delegates	70,000	10,500	80,500	1,342

- Registration will be confirmed on receipt of the payment.
- To register online, please log on to <http://indiainfrastructure.com/conf.html>

Payment Policy:

- Full payment must be received prior to the conference.
- Conference fee includes lunch, tea/coffee and conference materials.

Contact: Megha Apte, Conference Cell, India Infrastructure Publishing Pvt. Ltd.

B-17, Qutab Institutional Area, New Delhi 110016.

Tel: +91-11-41034616, 41034615, 9582345887, Fax: +91-11-26531196, 46038149.

E-mail: conferencecell@indiainfrastructure.com