

Training Programme
on

PERFORMANCE MANAGEMENT OF THERMAL POWER STATIONS FOR IMPROVED EFFICIENCY

17th–21st DECEMBER, 2018



असीमित ऊर्जा, अनन्त संभावनाएँ
Endless energy. Infinite possibilities.

REC INSTITUTE OF POWER MANAGEMENT AND TRAINING
of
REC LIMITED

(formerly known as Rural Electrification Corporation Limited)

INTRODUCTION

Higher efficiency is the hall mark of every field of human intervention, more so in the power sector as it has a direct bearing on the cost of power supply. Increasing efforts in cost reduction plays a pivotal role in garnering consumer satisfaction. In Power Generation Sector, enhanced efficiency coupled with the incentives to be availed under CDM (Clean Development Mechanism) and PAT (Perform, Achieve & Trade) has a significance influence in the present competitive power market.

The energy efficiency of a conventional thermal power station, considering energy produced as a percent of the heating value of the fuel consumed, is typically around 33% to 48%. The efficiency depends on process associated and the facilities. The Processes are highly dependent on technology. Therefore, improvement of efficiency has some general as well as some specific approaches related to the processes adopted. The process efficiency or Heat Rate (HR) improvement will comprise of measures varying from very small steps under normal operation to major technological upgradation as a part of Renovation & Modernization (R&M).

In Thermal Power Plants, significant amount of generated energy is used for the plant operation itself in the form of Auxiliary Power Consumption (APC), which needs to be brought down under an efficiency improvement process. Energy conservation through system optimization and enhancing individual equipment efficiency are among few common measures towards reducing APC. Regulators both at Central & State levels are fixing specific percentage of generated power as allowable auxiliary consumption and any excess consumption may not be allowed as a pass through in the tariff fixation.

Higher waste heat recovery measures enhance the efficiency significantly. Reduction in variable cost substantially improves the chances of the plant for being considered under merit order for dispatch all the time avoiding frequent backing down, resulting in increased specific fuel consumption as well as secondary fuel consumption.

Keeping in view of the importance of efficiency improvement, REC Institute of Power Management and Training (RECIPMT) will be organizing a five day training programme on “**Performance Management of Thermal Power Stations for Improved Efficiency**” from 17th-21st December, 2018 at RECIPMT Campus, Hyderabad.

PROGRAMME OBJECTIVES

- To understand the significance of overall concept of Energy Efficiency and Related Issues.
- To have awareness of the benefits from CDM & PAT.
- To gain knowledge on measures for improved efficiencies in Thermal Power Plants.
- To get familiarized with the latest trends in waste heat recovery & reduction in cost of generation.

PROGRAMME CONTENTS

- Energy Efficiency in Thermal Power Plant-Context & Drivers.
- Process Efficiency & Heat Rate.
- Impact of Technology on Efficiency-Advance Technology (Supercritical).
- Gross & Net Heat Rate, Boiler & Turbine Efficiency.
- Auxiliaries' Efficiency, Equipment Efficiency.
- Efficiency & Sustainability –Environment friendly Efficient operation, PAT CYCLE –II
- IT Applications for Plant Performance Improvement.
- Case study of Power Plant Performance Improvement.

PEDAGOGY

The Programme will be conducted in an interactive environment, with faculty acting as facilitators to create a participative learning environment along with Case Study Discussions. Resource Persons from their respective field are identified as Guest Speakers.

TARGET LEVEL

Engineers of Power Utilities such as Central Generating Stations, State Generating Companies, Independent Private Power Developers & Regulators related to Power Sector.

PROGRAMME TIMINGS AND VENUE

17th-21st December, 2018 from 9.45 am to 5.15 pm with a break for lunch, tea and refreshment. The venue will be RECIPMT Campus, Near Aramgarh Junction, NPA Post, Hyderabad - 500 052.

PROGRAMME FEE

Category	Course Fee per participant	Service Tax (15%)	Total Course Fee/ Participant without Group Discount	Group Discount of 10% for three or more Participation from same utility***
Residential*	₹ 27,500	₹ 4,950	₹ 32,450	10%
Non Residential**	₹ 22,200	₹ 4,050	₹ 26,550	10%

* Includes Boarding and Accommodation in addition to tuition, courseware & other facilities, Field Visit, etc.

** Excludes Accommodation, Includes only Working Lunch, Class room Tea & Snacks.

*** Only on Participation basis

The Accommodation is provided on Double Occupancy Basis

Note: No Pick-up or Drop facility will be provided by RECIPMT (CIRE). The participants have to make their own arrangements to reach RECIPMT (CIRE) Campus.

Course Fee shall be paid in the form of a demand draft in favor of “**REC Institute of Power Management and Training**” payable at Hyderabad in advance or at least at the time of registration. The Course Fee may also be paid by NEFT/RTGS transfer to **HDFC Bank Account No: 00210350000930, IFSC Code: HDFC0000021, GSTIN of Organization: 36AAACR4512R3Z0.**

HOW TO REGISTER

Please send the nominations on or before **11th December, 2018** along with DD/ NEFT transfer to: **The Additional Director, REC Institute of Power Management and Training, N.P.A. Post, Shivarampally, Hyderabad-500052. Office Phone: 040-2988 5851, Fax: 040-29805896, E-mail: recipmt@gmail.com; recipmtrg@recl.in.**

Participants are advised to commence their journey, after receiving the confirmation from RECIPMT.

CERTIFICATE OF PARTICIPATION

On the concluding day of the programme, participants will receive a Certificate of Participation.

ABOUT REC

Since its inception in 1969, REC Limited (formerly known as Rural Electrification Corporation Limited), A Navratna PSU, has been playing a significant role in financing and promoting electrification projects across India. Within a span of 45 years, REC has emerged as India's leading finance company in power sector. Be it generation, transmission, distribution or renewable energy, REC has always created benchmarks in its every performance. Based on the MOU with Ministry of Power, the performance of REC is rated as "Excellent" consistently for the last 21 years.

ABOUT RECIPMT

REC Institute of Power Management & Training (RECIPMT) earlier known as Central Institute for Rural Electrification was established at Hyderabad in 1979 under the aegis of REC Limited to cater to the training and development needs of Engineers and Managers of Power and Energy Sector. RECIPMT is relentlessly engaged in capacity building to strengthen the human resources development initiatives of Power Sector. RECIPMT has been conferred with Education Leadership Award by reputed Business School and ABP News National Educational Award for 3 years in recognition of Leadership, Development, Innovation and Industry interface. The Institute is spread over an area of about 14.6 acres, with administrative, teaching and hostel blocks. Class rooms and hostel rooms are air-conditioned. An Energy Park has been set up to develop awareness on Renewable Energy Sources System and High Voltage Distribution System.

Upto March 2018, the Institute has organized 1972 training programmes and 43352 Engineers/ Managers from various Power Utilities, like Generation, Transmission & Distribution Companies, Electricity Departments, Rural Electric Cooperatives, Regulatory Commissions, Rural Development Agencies, Banks, CPUs, etc., participated in the programmes. The Institute has organized 87 International Training Programmes under ITEC/SCAAP of Ministry of External Affairs, GoI and trained 1389 executives from 86 countries



Programme Coordinator

Aparup Paul

Faculty

Programme Advisor

G. Shankar

Additional Director



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(A Government of India Enterprise)

Aramgarh, Shivarampally, NPA Post, Hyderabad-500 052
Office Phones: 040-29885851, 040-29805897

Fax: 040-2980-5896, E-mail: recipmt@gmail.com, recipmt@recl.in

Regd. Office: Core-4, SCOPE Complex, 7 Lodi Road,
New Delhi-110 003

CIN:L40101DL1969GOI005095

