

NPC Consultant Professional Profile

I. Personal Information

Name: Amitava Ray

Date of Birth: 22.12.1967

Current Position & Domain: Group Head; Director Grade-II, Administration

Office Location: NPC HQ, New Delhi

Languages: English, Hindi

Contact: [Amitava.ray@npcindia.gov.in; NPC HQ, New Delhi]



II. Professional Summary

Total number of years of experience in NPC: 27

Nearly 24.5 years of experience in consultancy and training in Energy Management and about 2.5 years in administration.

Core expertise areas: Energy Audit, Water Audit, Faculty on Energy Management Subject

Significant achievements: Team leader in all energy management assignments done at RD Kanpur during the period year 2000-2022 Kanpur. All assignments were successfully completed single handedly.

Clients were happy with the quality of work and had awarded repeated assignments.

III. Areas of Expertise

Primary Domains: 1. Thermal Engineering Audits

2. Power Plant Engineering Audits

3. Electrical Engineering Audits

4. Manufacturing & Process Industry Audits

Specialized Skills: Conduct Energy Audits & Water Audits, Measurement & Verification studies, BEE star rating of buildings and impart training to industry personnel.

List 4-5 specialized technical or consulting skills]

Industry Focus: Thermal Power Plants, Sugar Industry, Cement Industry, Aluminium Industry, Fertilizer plant, Integrated Steel Plant, Slaughterhouses, Vanaspati Ghee, Rolling Mills, Glass Industry, Electricity Power Transmission & Distribution companies, Zinc Industry & MSME.

IV. Professional Experience

Current Position: Group Head (Administration) **Organisation:** [National Productivity Council, Lodhi Road, New Delhi; **Duration:** [May 2022 till date]

Key Responsibilities:

- Augmenting working efficiency of Administration group.

Previous Position: [Regional Director] **Organisation:** [NPC RD Kanpur] **Duration:** [Nov 2019 – Apr 2022]

Key Responsibilities:

- Meeting the roles and responsibilities of Regional Director
- Achieve Financial Targets assigned by HQ.
- Conducted Self Run Training Programmes
- Motivating all officers to complete work in time.
- Discipline in office.
- Interacting with Industry personnel for new assignments and apply tenders.
- Initiated Adequacy Test for Tanneries in Kanpur
- On nomination basis got energy audit of 8 plants of Hindustan Zinc Limited in Rajasthan.
- Conducted successful online training programmes during COVID period.
- Faculty in training programme for NTPC Engineers at Power Management Institute (PMI) NOIDA

V. Major Project Experience in NPC [For each significant project, include:]

Project Title: [Accelerated Power Development & Reform Programme]

Client Name: [Assam State Electricity Board] **Type:** [State Government] **Sector:** [Power Transmission & Distribution Company]

Role: [As a lead team member in Guwahati, Dibrugarh & Tinsukia Circles]

Duration: [1999-2002]

Problem Definition: [Reduction electricity losses]

Recommendations Made: [Recommendations were regarding replacing old and inefficient equipment, machinery, installation of measuring instruments for measurement of electricity consumption and its monitoring, installation of electronic meters, construction of new substations, Replacement of age old transformers with efficient one, Replacing single feeder transformers with three phase transformers, phase balancing, improve quality of power (voltage and harmonics), Balancing of power in feeders, detecting hot spots in distribution lines.

Impact Created:

All recommendations were implemented resulting in reduction of transmission and distribution losses in the nearly 15%.

Energy Audit of 8 plants of Hindustan Zinc limited at Rajasthan.

Client Name: [Hindustan Zinc Limited] **Type:** [Private, Vedanta Ltd.] **Sector:** [Zinc Production Company]

Role: [Team Leader]

Duration: [2017]

Problem Definition: [Identify Thermal & Electrical Energy Loss and suggest remedial measures]

Recommendations Made: Replacement of Fluid Coupling with Variable Frequency Drive in 1.5MW. Pumps were identified that were delivering water 40% of the rated capacity. Impeller of these pumps were replaced with new one. It resulted in stopping 3 pumps causing electrical energy savings. At Udaipur plant every day there was electrical energy loss due to part load running of boilers during removal of zinc plates (electrolysis plant). Measures was suggested to avoid the loss by using power for electrolysis during the period for chilled water generation which could be used for cooling the rectifiers. In captive power plant boiler efficiency was improved by reducing flue gas losses. One Boiler was experiencing back pressure in throwing flue gas through

chimney. The problem was investigated and finally sorted out. It resulted in improvement in boiler loading and improved efficiency. An age old 1.5MW rated centrifugal compressor supplying compressed air to different machines covering long distance was removed and replaced with three smaller capacity efficient screw compressors installed close to the user point. The energy savings were varying from 12-20% in different plants.

Energy Audit at LANCO Anpara & Korba

As a team Leader successfully completed the audits of both the units. Field study took about two months' time. The major energy saving measures included were in Coal Handling Plant (measures for reduction in specific energy consumption), Ash handing plant (Stopped one pump), compressed air system (Cutting down energy cost of ½ compressors), Water pumping system and Induced Fan Power loss due to uneven flow of flue gas in paths. Cost benefit analysis of replacing Fluid Coupling with Variable Frequency drive. Heat Balance of Fluid Coupling. Energy saving Condensate Extraction pump by removing two stages of the pump. Lighting The energy savings were to the extent of 15-18% in both the plants.

Evaluation of Application for Energy Awards for Dubai Supreme Council of Energy in the year 2017 and 2022

Appointment of Assistant Directors 2024 and DPC during 2023 as Group Head (Administration)

VI. Educational Background

Highest Degree:

- **Degree:** PG diploma in Energy Management,
- **Institution:** AIP Chennai; Full Time
- **Year:** [1995-1997]
- **Specialization:** [Energy Audits]
- B. Tech Mechanical Engineering

Additional Professional Qualifications:

- Certified Energy Auditor
- Certified Lead Auditor in ISO 500001:2018
- Certified CVMP

VII. Research and Publications

Recent Publications:

- NIL

Speaking Engagements:

- Faculty in Training Programme

Awards and Recognition

- NIL

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that I shall be responsible for any willful misstatement described herein.



Date: 10.2.2025

[Signature of Employee]

Place: New Delhi

[Amitava Ray]

Profile Update History

Last Updated: [Date]

Next Review Due: [Date]

*Photo Specifications

- Professional headshot
- High resolution (minimum 300 DPI)
- Business formal attire
- Neutral background
- Recent (within last 12 months)