



NATIONAL PRODUCTIVITY COUNCIL
Dr. Ambedkar Institute of Productivity (AIP)
Chennai

Advertisement - Request for Quotation for Hiring of Instruments with Man-power for Measurement Services under the scope of Energy Audit

Tender No. AIP/EM/EA/2025

Date: 07.10.2025

1. INTRODUCTION

National Productivity Council (NPC) is national level organization to promote productivity culture in India. Established by the Ministry of Industry, Government of India in 1958, it is an autonomous, multipartite, non-profit organization with equal representation from employers' & workers' organizations and Government, apart from technical & professional institutions and other interests. NPC is a constituent of the Tokyo-based Asian Productivity Organization (APO), an Inter-Governmental Body, of which the Government of India is one of the founder members.

NPC teams up with its clients to work out solutions towards accelerating productivity, enhancing competitiveness, increasing profits, augmenting safety and reliability, and ensuring better quality. It provides reliable database for decision-making, improved systems and procedures, work culture as well as customer satisfaction both internal & external. The solutions can be all-encompassing or specific depending on the nature of the problem. Promotional and catalytic in nature, NPC's services have bearings on economic growth and quality of life. The Council promotes a comprehensive view of productivity focused on improving triple bottom line – economic, environmental, and social and adds value for all the stake holders through generation & application of advanced knowledge for inclusive Growth. For further details, please visit our web site: www.npcindia.gov.in

Energy Management (EM) Division of NPC offers Consultancy / Training services since 1964. NPC has core strength of 30 EM professionals which include about 20 BEE certified Energy Auditors. The areas of expert services of this division are enlisted below:

- Energy Management and Audit in All Types of Industries, Commercial Buildings & Establishment, Power-Generating Plants, Distribution System.
- Water audit/ Balance study in all types of industries.
- Demand Side Management Potential with Focus on the Industrial Sector.
- To Strengthen Policy Aspects and Increase Public Awareness of Energy Conservation Issues Through Modular Training Programmers for Senior, Middle and Shop Floor Level Executives.
- Technological Up-gradation and Resource Conservation in SME's Through Cluster Approach.

- Providing Technical Expertise Services to APO Member Countries in Energy Efficiency.
- Providing Hands on Training at Centre Excellence for Training in Energy Efficiency and Indo-Japan Project on Regional Energy Efficiency Centre at Dr. Ambedkar Institute of Productivity, Chennai, Sponsored By DIPP, with Support from BEE & NEDO, Japan.
- NPC has been conducting the Prestigious National Certification Examination for Energy Managers and Energy Auditors on Behalf of The Bureau of Energy Efficiency (BEE), Ministry of Power, India, Since 2004.

SECTION-1 Invitation of Techno-Commercial Proposals

1. Agency/Vendors are advised to study the document carefully. Online Submission shall be deemed to have been done after careful study and examination of the bid document with full understanding of its implications.
2. Not more than one RFQ shall be submitted by one bidder or bidders having business relationship. Under no circumstance will father and his son(s) or other close relations who have business relationship with one another (i.e., when one or more partner(s)/director(s) are common) be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both parties liable to rejection.
3. Agency/vendors that have downloaded the tender from the NPC website www.npcindia.gov.in shall not tamper/modify the tender form including downloaded price bid template in any manner. In case if the same is found to be tempered/modified in any manner, tender will be completely rejected, and tenderer is liable to be banned from doing business with NPC.
4. Bids will be opened as mentioned in Clause 6 (c). After online opening of Technical-Bid the results of their qualification as well Price-Bid opening will be intimated.
5. Schedule for Invitation to Bid

a) Addressee and Address:

Shri.G.Sarvanan,
 Director & Head (AIP)
 National Productivity Council,
 6, Aavin Dairy Road, Ambattur Industrial Estate(North),
 Ambattur,Chennai-600050.
 Email: g.saravanan@npcindia.gov.in/ chennai@npcindia.gov.in

b) Name of the Contact Person for any clarification:

Shri. Varun J.P.
 Deputy Director
 Energy Management Division,
 Email:
varun.jaganathan@npcindia.gov.in
 Ph: 9940451127

c) Important Dates:

The following table provides information regarding the important dates of the Bid process:

CRITICAL DATE SHEET

PUBLISHED DATE	08 TH OCT 2025
SUBMISSION START DATE	08 TH OCT 2025
SUBMISSION END DATE & TIME	15 TH OCT 2025 UP TO 15:00
BID OPENING DATE	16 TH OCT 2025

6. Proposal Submission Process

- i. Agency/vendor needs to submit technical details and financial quotation for above mentioned work as separate attachments through email. (Separate attachments in PDF format) for both the units separately.
- ii. Technical Bid should contain signed & scanned copy of the advertisement inviting proposal, filled in Annexure-I and supporting documents.
- iii. The Financial quotations / bid should contain only the Annexure-II.
- iv. Please note that Agency/vendor need to submit the financial quotation (in PDF file format) with password protection.
- v. Both the bidding documents should be submitted via mail to varun.jaganathan@npcindia.gov.in by marking a copy to g.saravanan@npcindia.gov.in on or before the specified date and time.
- vi. After Bid Submission end date and time on successful qualifying the technical evaluation process, NPC will request (vide email: varun.jaganathan@npcindia.gov.in) to share the password of financial bid for evaluation. The password to be shared only through return email.
- vii. If the vendor does not meet the technical criteria(s), no email will be sent from NPC requesting to share the financial bid password.

7. Important Instructions

- i. The financial quote is to be as per Annexure-II and the professional fees with applicable taxes should be clearly mentioned.
- ii. All Travel (TO/FRO), lodging/ boarding charges etc. is purely in the scope of bidder.
- iii. Even though proposal may satisfy the above requirements, the same may be disqualified for the following reasons:
 - i) If misleading or false representation of facts are made or deliberately suppressed in the information provided in the forms, statements, and enclosures of this document.
 - ii) If they have a record of poor performance such as abandoning work, not properly completing the contract or financial failures/weaknesses.
 - iii) If confidential inquiry reveals facts contrary to the information provided by the agency/vendor or unsatisfactory performance in any of their previous engagement.

- iv. All agencies must follow the project monitoring and quality review guidelines as decided by NPC on case-to-case basis.
- v. Any agency can be debarred if the performance during the execution of project or compliance with the guidelines is found to be unsatisfactory.
- vi. National Productivity Council reserves the right to accept or reject any or all the quotations either fully or partly at any stage without assigning any reason.
- vii. All the information collected during the process of study is strictly confidential and no part of the work to be reported anywhere.
- viii. The measurements listed in this document are indicative; if additional measurements are required to ensure completeness of the measurement scope, or if certain measurements need to be repeated, the agency shall carry out such additional measurements upon the request.
- ix. All the energy audit instruments used for the study shall be calibrated and certified.
- x. If selected, the agency shall be required to commence the work immediately, i.e., from 21st October 2025 for Unit-I.

Section-2 Technical Support Services to be provided to NPC:

1. NPC, Chennai intends to conduct Energy Audit study at location mentioned below.

S.No.	Unit Details
1.	Unit-I (Chengalpattu District)
2.	Unit-II (Chennai District)

2. Scope of Work:

The detailed scope of work pertaining to study includes the following. The services, including but not limited to following should be provided to NPC, Chennai by the successful bidder:

- o The Agency/vendor has to provide all the required energy audit instruments for electrical & thermal load evaluation at the project site along with technical qualified personnel to operate the instrument and complete the field study.
- o The Agency/vendor is required to submit the field measurement and other data taken during the field study.
- o The detailed scope is enclosed in the **Annexure-A**
- o All the measurements with necessary documents as per the format provided shall be submitted through email to varun.jaganathan@npcindia.gov.in on or before 1 week from the start of the field study

3. Pre-Qualified Selection Criteria:

The following pre-qualified criteria are essential for conducting the above-mentioned activities:

- Must have carried out at least two Building Energy Audits.

The Agency is expected to carry the necessary energy audit instruments for electrical, thermal and mechanical measurements and skilled manpower for measurement.

All energy audit instruments must be in possession of the agency at work site during the field study. All the instruments must have a valid calibration certificate. The same is to be submitted along with the field measurement report to NPC. The indicative list of instruments includes 3-phase power analyser with data logging, Three-phase power analyser with (Single CT), Anemometer, Hygrometer, Ultrasonic Flow meter, Temperature gun, Lux meter etc.

NPC would assess the technical proposal based on the above qualification criteria. The financial quotation would be opened only for the technically qualified agencies/vendors. Final selection would be based on L1 (Least Cost System) criteria.

4. Payment & Other Terms:

Estimated Cost:

Unit I:- Rs. 80,000 /- (Rupees Eighty Thousand only) exclusive of applicable GST.

Unit II:- Rs. 40,000 /- (Rupees Forty Thousand only) exclusive of applicable GST.

Payment Terms:

- 100% payment shall be released upon successful completion of the measurements of the respective units, to the satisfaction of NPC official /client, and upon handover of all measurement data.
- Payment will be made after deducting TDS.

You are requested to submit on or before 15.10.2025, which comprises of the following.

- 1) Annexure I & II, attached separately by mail (as indicated in Section -1 & 2 above)
- 2) Documentary proof / evidence for the above pre-qualified criteria
- 3) Calibration certificates of the instruments. However, in case the agency is unable to submit the list of instruments along with valid calibration certificates at the time of tender submission, the same shall be produced prior to or at the commencement of the field visit.

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ANNEXURE-I

Format of Application for Submission of Technical Proposal

1.	Name of the company	
2.	Type of Organization (Please provide copies of Memorandum& Articles of Association, etc.)	
3.	Year of Establishment	
4.	Address of Corporate Office, Telephone/Tele fax Numbers, corporate email-ID and website URL name of the Applicant	
5.	Names, Address and Email IDs & mobile numbers of Authorized Representatives/contact persons	
6.	Name and addresses of Directors/Partners/Proprietors/Key Managerial Personnel	
7.	GST No. (Attach supporting documents)	
8.	Company or Firm PAN Number (attach supporting documents)	
9.	Details of Applicant's Account 1. Bank Name & Branch 2. Account Name 3. Account Number 4. IFSC (Attach supporting documents)	
10.	Nature of present or previous association with NPC (if any) for providing similar or any other nature of service (Attach supporting documents)	

11.	List the business association/work executed of Similar Nature. Provide Supporting Documents. (Minimum 2 Workorders)	
12.	Details of Skilled Manpower for conducting the field Study:	
13.	List the instruments in possession as per the Scope:	
14.	<p>Have you been blacklisted/debarred by any of the Government Undertakings/Companies /Organizations, and if so, name of the</p> <p>i. Company as well as period of debarring and reasons thereof</p>	

(Authorized Signature & Seal)

ANNEXURE-II

Format of Application for Submission of Financial Proposal

I, _____ interested in conducting the following Energy audit
and the cost is as given below.

Facility	Location	Cost exclusive of GST (Rs.)
Unit – I	Chengalpattu District (as per detailed scope mentioned in Annexure -A)	
Unit-II	Chennai District (as per detailed scope mentioned in Annexure -A)	

Unit -I

Total Value In figures: In Words:	
Applicable Taxes (GST):	
Gross Total Value (incl. of GST) In figures: In Words:	

Unit -II

Total Value In figures: In Words:	
Applicable Taxes (GST):	
Gross Total Value (incl. of GST) In figures: In Words:	

Send password protected file for the unit mentioned in section 2

(Authorized Signature & Seal)

Measurement required for carrying Building Energy Audit at two locations

Unit I

1) System: Chiller System

There are about 9 chillers both centrifugal and screw chiller sized ranging from 550 to 800 TR capacity.

Measurement required:

Chilled water and condenser water flow measurements along with power measurement including other parameters such as Voltage, current, kVA, kW, Power factor etc. of compressor and Primary pumping system (4 Nos.)

Expected Outcome: kW/TR of chillers and Pump efficiency

a) Sub- System: Cooling Tower (two battery of cooling towers)

Measurement required:

i) Water flow measurements along with power measurement condensate pumping system (4 Nos.) and fans (10 Nos.) including voltage, current, kVA, kW, Power factor etc.

ii) Psychrometric parameters: Inlet and outlet water temperature, Dew point temperature, WBT, DBT, RH% etc.

b) Sub- System: AHUs

There are about 150 AHUs in the facility. Significant AHUs on sample basis (approx. 25 Nos.) shall be measured. The measurement includes inlet and outlet psychrometric parameters, Air flow along with power consumption of the same.

2) System: Electrical System

a) Electrical parameters such as Voltage, Current, Active Power (kW), kVA, kVA_r, True Power factor, Harmonics (THD of voltage and current) etc. at PCC (110 kV sub-station). Parameters to be recorded at 5/10 min interval using 3-phase Power analyser for minimum of 48 hrs on logging basis.

Expected Outcome: Transformer losses

b) Similar parameter measurements on an instantaneous basis at Power blocks, Sub-Distribution boards (about 9 Nos.)

c) Instantaneous Power measurement at inlet and outlet of UPS systems (about 15 nos.)

d) Instantaneous Power measurement of laundry items such as Boiler (5 Nos.), Washing machines & Dryer (20 Nos.) and exhaust fans (5 Nos.)

3) Lighting measurements

Measure Average lux (lux measurement should be averaged over multiple points) at each category such as work area, service area, circulation, utility/canteen, parking/external etc. totalling to about 25 locations and power measurements for the same.

4) Power measurements at STP

Instantaneous Power measurement of electrical motors pertaining to pressure pumps (30 Nos.) and Air Blowers (4 Nos.)

5) PAC units

The measurement of inlet and outlet psychrometric parameters, Air flow along with power consumption of the PAC/CCU units (15 Nos.)

Unit- II

1) System: Chiller System

There are about 3 chillers ranging from 400 to 540 TR capacity and Baby chiller of 3-5 nos. less than 20 TR.

Measurement required:

Chilled water and condenser water flow measurements along with power measurement including other parameters such as Voltage, current, kVA, kW, Power factor etc. of compressor and Primary pumping system (3 Nos.)

Expected Outcome: kW/TR of chillers and Pump efficiency

a) Sub- System: Cooling Tower (3 towers)

Measurement required:

i) Water flow measurements along with power measurement condensate pumping system (5 Nos.) and fans (3 Nos.) including voltage, current, kVA, kW, Power factor etc.

ii) Psychrometric parameters: Inlet and outlet water temperature, Dew point temperature, WBT, DBT, RH% etc.

b) Sub- System: AHUs

There are about 43 AHUs in the facility. Significant AHUs on sample basis (approx. 8 Nos.) shall be measured. The measurement includes inlet and outlet psychrometric parameters, Air flow along with power consumption of the same.

2) System: Electrical System

a) Electrical parameters such as Voltage, Current, Active Power (kW), kVA, kVA_r, True Power factor, Harmonics (THD of voltage and current) etc. at PCC (110 kV sub-station). Parameters to be recorded at 5/10 min interval using 3-phase Power analyser for minimum of 48 hrs on logging basis.

Expected Outcome: Transformer losses

b) Similar parameter measurements on an instantaneous basis at Power blocks, Sub-Distribution boards (about 7 Nos.)

c) Instantaneous Power measurement at inlet and outlet of UPS systems (about 7 to 10 nos.)

3) Lighting measurements

Measure Average lux (lux measurement should be averaged over multiple points) at each category such as work area, service area, circulation, utility/canteen, parking/external etc. totalling to about 2 to 3 locations and power measurements for the same.

4) Power measurements at Miscellaneous Loads

Instantaneous Power measurement of electrical motors pertaining to various equipment (10 Nos.)

Please Note: Wherever the measurement involves less than 10 HP suitable CT rating of the Power analyser shall be used.

5) CSU/PAC

The measurement of inlet and outlet psychrometric parameters, Air flow along with power consumption of the PAC/CSU units (10 Nos.)
