

NTPC LIMITED
Consultancy Services
EOC Noida

Vendor Enlistment/ Rate Contract for Pre Bid tie ups. - Stage-I
CSG-01-Energy Audit of Power Generating Stations

- 1.0 **Brief Scope of work:** Measurement of Electrical Power Consumption of Drives & Process parameters like water flow, Flue Gas Parameter like O₂, CO₂, CO in power and process plants as per BOQ.
- 2.0 **Intent:** The intent of this Rate Contract is to select qualified Energy Auditing Agency for Energy Auditing Work in India.
- 3.0 To enter into rate contract agreement with vendors capable of carrying out comprehensive Energy Audit in large Energy Intensive Utility like Thermal power station, captive Power Station, Refineries, Steel Plants and other large process industries.
- 4.0 Power Generating Unit of capacity 100 MW to 800 MW, Captive Power Station of Installed capacity of 80 MW and above, Steam and Power Generating Co-Gen Units of 150 T /hr Steam.
- 5.0 **Coverage:** In the zones mentioned in BOQ.
- 6.0 Duration of Rate Contract: The enlistment shall be valid for a period of 3 years. However, the rate contract finalized subsequently may be valid for 2 years
- 7.0 Minimum Quantity: There is no minimum off take quantity.
- 8.0 Work Completion Period: 3 Month from the date of Start of work.
- 9.0 Lead time /Intimation Period: 15 days before start of work.
- 10.0 Scope of Work:
 - 10.1. Measurement of Electrical Energy of specified Drives, water flow of specified circuits, Flue gas parameters like O₂, CO₂, CO. Indicative list of drives and measurement points are: ID, FD, PA, MILLS, Compressors, FW, CW and some selected Drives >100 Kw, etc Flue gas parameters at APH Inlet Outlet, O₂ mapping across Flue gas duct.
 - 10.2. Continuous data collection from the instruments through data loggers/manual reading and providing the data in soft formats wherever required.
 - 10.3. The scope includes complete mobilization and demobilization of required measuring instruments, adequate skilled manpower for complete scope of work. It includes transportation of required measuring instruments to client sites, installation of requisite instruments at specified locations at client sites for data collection, measurement of

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specified parameters as per requirement of audit and submission of data in a consolidated pre defined format.

- 10.4. The test instruments should meet the specified requirement given in this document. The measuring instruments to have valid calibration certificate from an accredited laboratory on the date of testing.
- 10.5. Envisaged duration of onsite measurement for one unit is approximately 1 week. However there is possibility of variation of 2 to 3 days in certain cases. No extra compensation shall be admissible for variations.
- 10.6. After completion of work vendor must demobilize all instrument, manpower from site after restoring plan condition (if altered) where ever applicable.
- 10.7. Recommended List of Instruments for Energy Audit.

S.No	Name of instrument	Range	Numbers
1.	Data Logger 60 Channel	NA	2
2.	Dry-Wet bulb thermometer	0 to 50 C (Least count 0.5)	2
3.	Flue Gas Analyzer O ₂ , CO ₂ , CO	0.2%	2
4.	Portable flue gas Analyzer		2
5.	3 Ph Power analyzer	0-5 A 0-150 V input from CT & PT	02
6.	3 Phase AC/DC clamp on power meter with current transformer	750 V, 0 to 10 KW 0 to 100 kW	3 3
7.	Power transducer	0-150 V, 0-1 A 0-5 A	5 5
8.	Non-contact type stroboscope	20-20000 RPM	01
9.	Non-contact type IR temperature indicator	0-500 °C	01

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11.0 Qualifying requirement:

11.1. General Requirement: The bidder should be a registered company in India.

11.2. Technical requirement:

SN	Qualifying Requirement	Submission requirement
1.	Applicant to have all instruments specified corresponding to the particular job with valid calibration certificate either owned or through valid tie up	List of instruments with Make, Model and accuracy and last date of calibration. Proof of ownership or tie up.
2.	Agency must have at least one senior personnel with total professional experience of more than 15 year in the relevant field.	CV of senior personnel
3.	Key qualified person with minimum of 5 year experience in the relevant field. Agency should have at least one qualified BEE Auditor.	List of employed persons and qualification and certification on experience. In case of BEE qualified Energy Auditor BEE number
4.	Agency should have completed at least 3 assignments with cumulative value of 20 Lakhs or more during the 3 preceding years as on the last date of submission of application for enlistment At least one of the assignments should be in a Power Plant of 200 mw and above.	Copy of Purchase order. Proof of work completion.

12.0 Instruction to Applicants:

12.1. Applicable Standard Terms and Conditions (STC) for applications specifically invited vide Notice Inviting Applications under reference CW-C&M- VENDOR ENLISTMENT dated 20.10.2016 for consultancy services group enlistment CSG-01) ,(CSG-02) and (CSG-03)are contained in STC document reference no.. CW-C&M- VENDOR ENLISTMENT /STC Dated 05.10.2016. Applicants should not refer any other STC that may appear in this website.

12.2. The purpose of the enlistment is to have a pre bid tie up with experienced agency (ies) in place, which can be used in future assignments to NTPC with a short notice.

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- 12.3. Applicants to upload the documents in support of their claim for meeting the qualification requirement. Based on the documents submitted, NTPC will evaluate and enlist the vendors found qualified for the jobs. Subsequent to enlistment, NTPC will invite price bids from the all the qualified applicants for the rate contract.
- 12.4. Evaluation Criteria:**
- a. Applicant/Bidder will be selected on the basis of lowest price quoted for each of the BOQ items. As such, the process may end up with one or more rate contracts depending upon rates quoted by the applicants.
 - b. The rates quoted by the applicants shall be inclusive of all taxes and duties.
- 12.5. The rates, thus finalized, will be valid for a period of 2 years from the date of agreement and no escalation, what so ever, will be allowed by NTPC during the currency of the rate contracts.
- 12.6. As the rate contract is to be used in future assignments, NTPC does not guarantee any minimum job during the period of rate contract.

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13.0 Bill of Quantity:

<u>Bill of Quantity</u> Energy Audit of Power Generating Stations (PLEASE DO NOT SUBMIT ANY PRICE DATA IN THE BOQ AT THIS STAGE. PRICE TO BE SUBMITTED IN THE STAGE-II BID)			
Sl.No.	Description	Unit of Measurement	Rate.(INR)
1.0	Complete scope as per scope of work above for Coal Power Station Up to and Including 300 MW		
1.1	Zone 1: UP, Haryana, Punjab, Rajasthan, Gujarat	Per Unit	*****
1.1	Zone 2: West Bengal, Odisha, Jharkhand, Bihar	Per Unit	*****
1.1	Zone 3: MP, Maharashtra, Chhattisgarh, AP, Karnataka, Tamilnadu, Telengana.	Per Unit	*****
2.0	Complete scope as per scope of work above for Coal Power Station above 300 MW, up to 800 MW		
2.1	Zone 1: UP, Haryana, Punjab, Rajasthan, Gujarat	Per Unit	*****
2.2	Zone 2: West Bengal, Odisha, Jharkhand, Bihar	Per Unit	*****
2.3	Zone 3: MP, Maharashtra, Chhattisgarh, AP, Karnataka, Tamilnadu, Telangana	Per Unit	*****
3.0	Complete scope as per scope of work above for Captive Power Stations including Co-Generation Stations of all sizes		
3.1	Zone 1: UP, Haryana, Punjab, Rajasthan, Gujarat	Per Unit	*****
3.2	Zone 2: West Bengal, Odisha, Jharkhand, Bihar	Per Unit	*****
3.3	Zone 3: MP, Maharashtra, Chhattisgarh, AP, Karnataka, Tamilnadu, Telangana	Per Unit	*****

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14.0 Qualification details:

14.1. General Requirement: Details of company. (Please enclose a copy of the certificate of incorporation issued by registrar of companies)

14.2. Technical Requirements:

a)	Seeking qualification for	Energy audit of Power Generating Stations of Various Capacity
b)	List of instruments with valid calibration certificate.	(Please attach a list of instruments relevant to the particular job available along with the details of quantities, make & model, accuracy, ownership details such as owned by the company/available through tie up, accuracy. Enclose copies of calibration certificates)
c)	No of persons with total professional experience of more than 15 years	(Please enclose CVs of all such persons including employment details)
d)	Key qualified persons employed with a minimum of 5 years experience relevant to the particular job :	(Please enclose list of such persons with details of employment, experience, etc.)
e)	No. of qualified BEE auditors employed.	(Please furnish a detail list with BEE number)
f)	No of energy audits completed in large utilities during the 3 preceding years as on the last date of submission of application for enlistment	(Please give reference to at least 3 such plants including at least one in a power plant of 200MW or above. Also please enclose detail work order and completion certificate from the client for all such reference plants)