# NTPC LTD

# USSC, VDC-RAIPUR

# VENDOR ENLISTMENT FOR O&M WORKS PACKAGE ON PAN NTPC BASIS

1	CEG No.	TMD-22
2	CEG DESCRIPTION	Material Mix up (Dissimilar metal checking) checking & other NDT works for TG area
3	RESPONSIBILITY CENTRE	CPG1 / VEC
4	AREA OF EXECUTION OF WORK	All area of TG/Power cycle piping including  1. Warmup piping,  2. Drain piping  3. Vent piping

		4. Impulse lines
		5. Thermowells
		6. Deaerator & FWST
		7. LP/HP extraction line
		8. Metallic expansion joints
		9. Emergency drains lines of TG area,
		10. Piping of Main turbine/ MS/ CRH/ HRH/ HPBYPASS/ LPBYPASS / Gland steam lines lines
		11. Any other area as per instruction of EIC
5	BRIEF SCOPE OF WORK for CONTRACTOR	1.Material Mix Up (Dissimilar metal checking)  The work against this job includes deployment of skilled and experienced manpower for checking of dissimilar metal using XRF analyser (PMI) of TG area piping. The dissimilar metals is to be checked in all bends/pipes/socket couplings and other identified points of TG Area.  The dissimilar metals are to be checked in all bend/pipes/socket couplings and other identified points of TG integral piping/drain piping/warm-up piping /impulse piping of Main Turbine/MS/CRH/HRH/LP/HP BYPASS line, steam extraction line and any other lines as instructed by the EIC.  The party has to plan for the activities of a particular day in consultation with the EIC in one day advance, so that maximum area can be covered in a particular day in an organized manner and all preparatory work as fixing of scaffolding if required, removal of insulation from the pipe and surface preparation for dissimilar metal checking to be done well in advance
		The party has to submit testing reports on a daily basis to the EIC for recording his observations and the same shall be witnessed by the EIC in charge. Marking of each point and line shall be done and the same shall be maintained in the report along with the composition and material for easy identification and rectification work.  The XRF analyser with calibration certificate along with calibration checking block for above work is in vendor's scope. As the work is to done in OH & there are lot of points to be measured sufficient teams/analysers shall be deployed as per instructions of EIC.

One measurement team shall consist of minimum 2 members & 1 no. analyser.

Grinding/Buffing in the scope of vendor for PMI (Positive Material Identification) Check

UOM (Unit of Measurement) 01 no is considered as 01 spot

After completion of total job, the service engineer shall submit his detail job report within 7 working days to EIC.

The submitted report must have the isometric drawing of tested pipelines for clear and easy picturization of above jobs

### 2. Scaffolding erection & removal:

Necessary scaffolding are to be made to carry out the inspection/testing/survey jobs Party has to bring the scaffolding material for the work on returnable basis. After work completion, scaffolding to be removed and area to be cleaned.

## 3. Scaffolding Material Transportation:

Transportation of scaffolding material from vendor's store to NTPC Plant & vice versa.

#### 4. Insulation/cladding removal cum reapplication

The work against this job include deployment of skilled and experienced manpower for removal/reapplication of insulation cum cladding.

**5. Deployment of manpower**: The work against this job include deployment of Highly skilled and experienced for quality checks coordination with FQA & report generation on daily basis. All welding's visual inspection and report preparation. inspection of pipes/elbows/socket couplings visual for overheating, erosion etc ,hardness/thickness to be checked & report to be prepared.

#### Other NDT Jobs

## 1) Thickness-(Survey/Study)

Tube thickness of TG area piping is to be surveyed with the help of calibrated D Meters for all bends/pipes/socket couplings and other identified points of TG Area

The thickness survey shall be done by skilled and experienced manpower.

		The agency shall deploy sufficient Nos of calibrated thickness gauges and necessary consumables such as emery paper, wire brush, cleaning cloths, greases etc. Tube surface grinding/buffing at hard scale/clinker formed areas to be done. Before start of thickness measurements, visual inspection of the area to be done for abnormality such as pitting, cut, Ovality, erosion and dents etc as per instruction of EIC.
		Agency must arrange ultrasonic thickness gauge (D-Meter), with proper calibration certificate. Instruments must be having minimum resolution 0.1 mm.  Note: In UOM (Unit of Measurement) 01 no is considered as 01 spot.  Grinding/Buffing in the scope of vendor.
		2)DP Testing The scope of work shall include DPT of all welds and other identified points of TG Area. DPT kit is in the scope of agency (DPT kit, Cleaner, Penetrant, Developer shall be of same make and have proper validity).
		3) Hardness Checking The work against this job include deployment of skilled and experienced manpower for checking of Hardness of TG area piping The hardness testing machine duly calibrated with calibration certificate, accessories, consumables, calibration block are in the scope of contractor
		1.0 Qualifying Requirements:
6		The applicant who wishes to participate in the enlistment shall meet the Qualifying Requirements stipulated here under:
	QUALIFYING REQUIREMENT	Technical Criteria:
		1.1 The applicant should have executed the work (s) of Material Mix-up checking (Dissimilar metal identification) of power-cycle piping in Power Plant having Minimum Unit Size of 200 MW, within preceding 05 (five) years reckoned as on the Last Date of submission of application.
		AND
		1.2 The applicant should have executed the work (s) of Thickness survey / DP Testing / Hardness Testing of power-cycle piping in

		Power Plant having Minimum Unit Size of 200 MW, within preceding 05 (five) years reckoned as on the Last Date of submission of application.
7	NOTE FOR TECHNICAL QUALIFYING REQUIREMENT	Power cycle piping includes any of the followings piping systems such as MS, CRH, HRH, HP Bypass, LP Bypass, Gland steam lines, Warmup piping, drain piping, vent piping, impulse lines, thermowells, deaerator & FWST, LP/HP extraction line.
8	DOCUMENT TO BE SUBMITTED BY VENDOR IN SUPPORT OF MEETING QR	Documents to be submitted as proof of meeting the stipulated Qualifying Requirements as stated above.  Relevant and legible PO copies with detailed scope of work, terms and conditions, BOQ POs (issued within last Five (5) years reckoned as on the Last Date of submission of application in support of award and copy of Client's Completion certificate/RA Bill/ final deviation statement from the concerned client /copies of invoice to establish successful execution as per QR.  NTPC can ask more documents if felt necessary.
9	ADDITIONAL DOCUMENTS TO BE SUBMITTED	In addition to the documents required in support of meeting technical requirements as stated above, following documents are required to be submitted by the applicants applying for enlistment: -  1. Three POs with BOQ of the highest executed values of similar work during previous five years from the date of submission of application and Copy of Completion Certificate /RA Bill/Final Deviation Statement from the concerned client in support of successful execution of jobs against each of the POs to be submitted.  2. Audited balance sheet including Profit & Loss statement for the previous three completed financial years reckoned from the Last date of application. In case the audited documents are not ready / available, then certified copy by a registered practicing Chartered accountant may be submitted.  3.NSIC / SSI / MSME registration certificate if applicable.

		4. PF and GST registration certificate
		5. List of all required Tools & Plants with populations available with the applicant.
		6. Any other documents in addition to the above which the applicant wants to submit.
		NTPC can ask more documents if felt necessary. Also, all documents/ facilities can be verified/ assessed if required.
		1) The word "Executed" mentioned in technical qualifying requirement means that the bidder should have achieved the criteria specified above, even if the total contract is started earlier and/or is not completed/closed.
		2) In case of orders under execution, the value of work executed prior to the date of application duly certified by the applicant's client shall be considered acceptable.
		Reference work executed by the applicant as a sub-contractor may also be considered provided the certificate issued by main contractor is duly certified by owner specifying the scope of work executed by the applicant in support of qualifying requirements.
10	NOTES	3) Value means basic value of the PO. Where PO value is composite (i.e. including Service taxes etc.), the applicant has to give break-up of composite PO value mentioning basic value, taxes etc. Any separate re-imbursement / escalation will not be considered.
		4) "Similar work" means works as mentioned in the QR technical criteria.
		5) All other terms & conditions of enlistment are as per the Special terms & conditions (STC) available at VEC portal vdc.ntpc.co.in"
		https://vdc.ntpc.co.in/UploadedFiles/Documents/STC.pdf
11	QUALITY PLAN	Not Applicable
12	CATEGORY OF ENLISTMENT	Category-1