



# भारत हेवी इलेक्ट्रिकल्स लिमिटेड

( भारत सरकार का उपक्रम )

## BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

**TCN - 11**

Ref: PSER:SCT:RKL-M1828:TCN-11

Date: 14-07-2017

Sub	Tender Change Notice (TCN) - 11.	
Job	Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.	
Ref	1.0	Tender no PSER:SCT:RKL-M1828:17.
	2.0	BHEL's NIT, vide reference no PSER:SCT:RKL-M1828:5666, Dated 27-04-2017.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:RKL-M1828:TCN-01, Dated 16-05-2017.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:RKL-M1828:TCN-02, Dated 23-05-2017.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:RKL-M1828:TCN-03, Dated 03-06-2017.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:RKL-M1828:TCN-04, Dated 13-06-2017.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:RKL-M1828:TCN-05, Dated 17-06-2017.
	8.0	BHEL's TCN-06, vide reference no PSER:SCT:RKL-M1828:TCN-06, Dated 19-06-2017.
	9.0	BHEL's TCN-07, vide reference no PSER:SCT:RKL-M1828:TCN-07, Dated 21-06-2017.
	10.0	BHEL's TCN-08, vide reference no PSER:SCT:RKL-M1828:TCN-08, Dated 27-06-2017.
	11.0	BHEL's TCN-09, vide reference no PSER:SCT:RKL-M1828:TCN-09, Dated 01-07-2017.
	12.0	BHEL's TCN-10, vide reference no PSER:SCT:RKL-M1828:TCN-10, Dated 06-07-2017.
	13.0	Other References, if any.

With reference to above, following points/documents, relevant to tender, may please be noted and complied with while submitting the offer.

1. Bidder's clarification is attached vide **Annexure-A** to **TCN-11**.
2. Revised Volume-IF-TCC-CML-SER-R-01 is attached herewith, superseding earlier version issued along with NIT. (Revision in cl. no. 2.5, 15.5.3, 33.0 and 37.0)
3. Revised Volume-IF-TCC-CML-SUP-R-02 is attached herewith, superseding Volume-IF-TCC-CML-SUP-R-01 issued earlier with TCN-07. (Revision in cl. no. 29.0 and 34.0)
4. Revised BOQ cum price schedule, VOLUME-III-PRICE SCHEDULE, REV-01 is attached superseding VOLUME-III-PRICE SCHEDULE, REV-00 issued earlier along with NIT. Bidder shall quote as per this revised Volume-III, Rev-01 only. Bidders are also requested to submit a declaration in techno-commercial offer that they have submitted their price bid as per REVISED price schedule format (VOLUME-III-PRICE SCHEDULE, REV-01).  
**Any other document uploaded in the price section other than Price schedule issued alongwith Tender/TCN shall not be taken into cognizance.**
5. Due date of submission of offer is extended from 14-07-2017 to **18-07-2017 (15-00 hrs)**. Bidders are requested to submit their offer by extended due date positively.
6. Revised 'No deviation certificate' is attached. Bidder to submit 'No deviation certificate' as per attached format only.
7. All other terms & conditions shall remain unchanged.

**Bidders are requested to go through all the tender documents before submitting their offer.**

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

Sr. Engr (SCT)

Encl: As Above.

पावर सेक्टर पूर्वी क्षेत्र ( मुख्यालय )

POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 2339 8000

## ANNEXURE-A TO TCN-11

**JOB: Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.**

TENDER NO. PSER:SCT:RKL-M1828:17.

**CLARIFICATION OF BIDDER'S QUERY**

SL NO	REFERENCE CLAUSE OF TENDER DOCUMENT	EXISTING PROVISION	BIDDER'S QUERY	BHEL'S CLARIFICATION
1	BHEL's clarification against sl. no. 12 of Annexure-A to TCN-05 and sl. no. 4 of Annexure-A to TCN-10	-	We would request that responsibility of providing all statutory clearances such as Forests, Environment, Railways, NH/roads etc and ROW should be the responsibility of the client. This would help the executing agency in focusing on timely completion of work. Kindly confirm	Successful bidder shall be provided with encumbrance free land along with ROW to carry out work. However, bidder shall have to carry out liasoning activities with statutory authority such as State Highway Authority, National highway Authority etc., as may be required for carrying out the work on behalf of BHEL/Owner.
2	Cl. No. 15.5.3, 40.0 of VOL-IF-TCC (Service) and cl. no. 33.0 of NIT	-	We understand that manpower requirements mentioned in Cl. No. 15.5.3 of TCC (Service) & Cl. No. 33.0 of NIT and T&P requirements mentioned in Cl. No. 40.0 of TCC (Service) is meant for guidance to the Contractor and is not binding on him. Kindly confirm.	Clause no. 15.5.3 of Vol-IF-TCC-CML (Service) has been modified. Refer attached Vol-IF-TCC-CML-SER-R-01. Other mentioned clauses shall be as per tender.
3	Cl. No. 8.1, 8.2 and 8.3 of VOL-IA-GCC-SUPPLY	-	Cl. No. 8.2 of GCC (Supply) mentions "100% payment shall be made only after commissioning of the Equipment, final acceptance and receipt of Bank Guarantee to cover guarantee period. Similarly clause no. 8.1 & 8.3 of the above referred volume speaks about supply of "Recommended Mandatory spares" for the tender. We understand that both these clauses are not relevant to the specific scope of work covered under the tender. Kindly confirm.	Bidder to refer clause no. 33.0 & 34.0 of VOL-IF-TCC (Supply) for payment terms. Refer attached Vol-IF-TCC-CML-SUP-R-02.
4	Cl. No. 11.2.1, 11.2.2 and 11.2.3 of VOL-IA-GCC-SUPPLY	-	Cl. No. 11.2.1, 11.2.2 & 11.2.3 of GCC (Supply) says that Client reserves the right "to split up the work amongst two or more Tenderers" OR "To award the work in part" and in the event of the same "modify the time for completion of work suitably". We would request you to withdraw this condition and confirm.	Shall be as per tender provision.
5	Cl. No. 29.2 of VOL-IF-TCC (Service)	-	As mentioned in Clause No. 29.2 of TCC (Service), O&M scope involves only the Intake Well. Pls confirm.	O&M scope shall be as per cl. no. 29.2.1 of TCC (Service).
6	Security Deposit	-	We understand that post award of Contract, Security Deposit will have to furnished only for Supply and Service Contract and not for the O&M Contract. Kindly confirm.	Security deposit shall be required for O&M contract as well.
7	General	Extension of Bid Submission Date	We would need minimum 7 days to submit our Bid after receipt of the clarifications from your end. Kindly therefore extend the Due date for bid submission accordingly.	Due date of submission of tender is extended upto 18-07-2017.

**CONTENTS**

<b>CLAUSE NO</b>	<b>DESCRIPTION</b>
1.0	NAME OF JOB
2.0	BROAD SCOPE OF WORK
3.0	SITE VISIT
4.0	GENERAL TECHNICAL REQUIREMENTS (CODES AND STANDARDS)
5.0	SERVICES TO BE RENDERED BY THE BIDDER
6.0	PROTECTION
7.0	ERECTION SERVICE
8.0	HEALTH, SAFETY & ENVIRONMENT
9.0	SPECIFIC REQUIREMENTS FOR ISO 9002
10.0	SPECIFIC SAFETY REQUIREMENT FOR THE PROJECT
11.0	LAND
12.0	WATER
13.0	ELECTRICITY
14.0	FACILITIES TO BE PROVIDED BY THE SUCCESSFUL BIDDER
15.0	PROJECT MANAGEMENT
16.0	CONSUMABLE
17.0	MMD
18.0	TEST CERTIFICATE FOR T&P
19.0	ISSUE OF T&Ps
20.0	AREA REQUIREMENT
21.0	CONSTRUCTION OF TEMPORARY OFFICE, STORES ETC
22.0	RECONCILIATION OF MATERIALS
23.0	TRAINING OF OWNER'S/ PURCHASER'S PERSONNEL
24.0	INSURANCE
25.0	SECURITY DEPOSIT (SD) AND PERFORMANCE BOND (PB)
26.0	PAYING AUTHORITY
27.0	BANKER
28.0	BANK CHARGES
29.0	COMPLETION PERIOD
30.0	CONSTRUCTION/ EXECUTION SCHEDULE
31.0	EXTENSION OF TIME FOR COMPLETION
32.0	TERMS OF PAYMENT
33.0	BILLING BREAK-UP
34.0	MOBILISATION ADVANCE/ INTEREST BEARING RECOVERABLE ADVANCE
35.0	ESCALATION (PVC)
36.0	OVER RUN COMPENSATION (ORC)/ RATE REVISION
37.0	TAXES, DUTIES, ETC
38.0	LIQUIDATED DAMAGE AND OTHER PENALTIES
39.0	GUARANTEE / WARRANTY, LATENT DEFECT LIABILITY & MAINTENANCE
40.0	TOOLS & PLANTS (TO BE PROVIDED BY CONTRACTOR)
41.0	CIVIL LABORATORY
42.0	CONTRACT RATE/ PRICE
43.0	EXCLUSIONS
44.0	OTHER TERMS
45.0	ANNEXURE-A: LIST OF EQUIPMENTS FOR CIVIL SITE LABORATORY
46.0	ANNEXURE-B : LIST OF TENTATIVELY APPROVED SUPPLIERS/ DESIGNERS

TENDER NO – PSER:SCT:RKL-M1828:17 (TCN-11)		
VOLUME-IF-CML-E, R-01	TECHNICAL CONDITIONS OF CONTRACT (SERVICE)	PAGE 2 OF 36

This volume shall be construed as part of tender document and shall be read along-with other volumes of tender. Unless otherwise specified, in case of any confusion of any clause/ provision of this volume or any conflict/ inconsistency of any clause/ provision of this volume with that of other volumes, the same shall be brought out by the bidder in writing to BHEL for clarification or during pre-bid discussions, if applicable, failing which most stringent interpretation in favour of BHEL shall be adopted and the same shall be binding to the bidder. Unless otherwise specified, all terms & conditions shall be applicable for entire scope and for each part/ package of tender.

CLAUSE NO	DESCRIPTION
<b>1.0</b>	<b>NAME OF JOB</b> Total scope broadly covers receipt, unloading, storage & handling at site, construction with associated civil work (including supply of steel & cement) at site, erection, laying, fixing, commissioning, final painting at site, trial run, handing over, etc. in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for <b>Raw water intake system including Intake Well, Pump House and Cross Country GRP Pipeline</b> complete with all accessories <b>including operation &amp; maintenance</b> for 1x250 MW unit at NSPCL, Rourkela, Odisha.
<b>2.0</b>	<b>BROAD SCOPE OF WORK</b>
2.1	The intent of this erection & commissioning specification is to provide services for execution of the project according to most modern and proven techniques and codes. The omission of specific reference to any method, equipment or material necessary for the proper and efficient services towards installation of the plant shall not relieve the successful bidder of the responsibility of providing such services/ facilities to complete the work or portion of work awarded to him. The quoted/ accepted rates/ price shall deem to be inclusive of all such contingencies.
2.2	The work to be carried out under scope of this specification covers complete work of handling including receipt from stores/ yard located within project premises, arranging their issue, transportation to site, temporary storage prior to erection, if required, cleaning, preservative painting, erection, alignment, welding, leveling, adjustment etc all pre-commissioning tests, start-up & trial run of individual equipment, final commissioning including supply of erection & commissioning spares as required till handing over, trial run & handing over of units to BHEL/ customer including performance & guarantee (PG) test of unit, reconciliation of materials issued to successful bidder & returning unused materials to BHEL stores/ yard/ places designated by BHEL. The work shall conform to dimensions & tolerances given in various drawings & documents that will be provided during erection. If any portion of works is found to be defective in workmanship & not conforming to drawings/ documents or other stipulations, the successful bidder shall dismantle and redo the work duly replacing the defective materials at their own cost, failing which recoveries, as determined by BHEL, shall be effected from successful bidder's bills.
2.3	It is not the intent of this specification to specify herein all the details of erection and commissioning. However, the system shall conform in all respects to high standards of quality & workmanship for performing the required duties in a manner acceptable to purchaser who will interpret the meaning of drawings and specifications and shall be entitled to reject any work or material, which in his judgments is not in full accordance herewith.
2.4	Omission of specific reference to any fabrication/ erection method, equipment or material necessary for proper & efficient working of the plant shall not relieve the successful bidder of the responsibility to provide such facilities to complete the work at quoted rates. Any mismatch/ defect found due to mistake in fabrication/ erection shall have to be rectified by successful bidder free of cost. Inspection by BHEL/ customer does not relieve successful bidder of their responsibility of executing quality erection.
2.5	Deleted.
2.6	Following shall be the responsibility of successful bidder and have to be provided within finally accepted rates/ prices.
2.6.1	Provision as required of all types of labour, supervisors, engineers, watch and ward,

	tools & tackles, calibrated IMTEs (Inspection, measuring and testing equipment) as specified and otherwise required for the work, consumables for erection, testing and commissioning including material handling.
2.6.2	Proper out-turn as per BHEL plan and commitment.
2.6.3	Completion of work as per BHEL schedule.
2.6.4	Good quality and accurate workmanship for proper performance of the equipment.
2.6.5	Repair and rectification.
2.6.6	Preservation/ re-conservation of all components during storage/ erection/ commissioning till handing over.
2.7	Drawings/ documents submitted along with tender are for guidance purpose only and no claim/ compensation, whatsoever, shall be entertained by BHEL on this account.
<b>3.0</b>	<b>SITE VISIT</b>
	Bidder should visit site and acquire full knowledge & information about prevailing site conditions and in & around plant premises together with all the statutory, obligatory, mandatory requirements of various authorities before submission of the bid.
<b>4.0</b>	<b>GENERAL TECHNICAL REQUIREMENTS (CODES AND STANDARDS)</b>
4.1	Except where otherwise specified, the plant/ equipment shall comply with appropriate Indian Standard or an agreed internationally accepted Standard Specification as mentioned elsewhere in contract specifications, each incorporating the latest revisions at the time of tendering. Where no internationally accepted standard is applicable, the bidder shall give all particulars and details as necessary; to enable BHEL to identify all of the plant/equipment in the same detail as would be possible had there been a Standard Specification.
4.2	Where the bidder proposes alternative codes or standards, they shall include in their offer one copy (in English) of each Standard Specification to which materials offered shall comply. In such case, the adopted alternative standard shall be equivalent or superior to the standards mentioned in the tender.
4.3	In the event of any conflict between the codes & standards referred above, and the requirements of the tender, the requirements which are more stringent shall govern.
4.4	Tools used during erection and commissioning shall not be accepted except with the specific approval of the engineer.
4.5	Wherever specified or required the plant/ equipment shall conform to various statutory regulations such as Indian Electricity Rules, Factories Act etc wherever required, obtaining approval for plant/ equipment supplied under the specification from statutory authorities shall be the responsibility of the successful bidder.
<b>5.0</b>	<b>SERVICES TO BE RENDERED BY THE BIDDER</b>
	Services for pre-assembly, equipment erection, testing as well as trial run & commissioning of various equipment & accessories under the contract shall include but not be limited to the following.
5.1	Unloading of materials at railway station/ transporter's godown/ railway siding/ inside or outside the project area, transportation to successful bidder's stores, assessment of lost/ damaged items in transit/ storage erection & commissioning, arranging the Insurance claims and replacement of lost/ damaged items. The successful bidder shall be responsible for making good the losses/ damages for cases for which BHEL is unable to lodge Insurance claim. BHEL is unable to recover the full cost from Insurance company against any claims, the balance including deductible franchise wherever applicable, will be recovered from the successful bidder.
5.2	Issuing materials from store/ open yard as specified earlier from time to time for erection as per the construction programme. The shall be the custodian of all the materials issued till the plant/equipment is officially taken over by the owner/ BHEL after complete erection any successful trial run & commissioning.
5.3	Transport of material to their respective places of erection and erection of the complete plant & equipment as supplied under this tender.
5.4	Trial run and commissioning of individual equipment/ sub-systems to the satisfaction of owner/ BHEL.
5.5	Deployment of all skilled and unskilled manpower required for erection, supervision of erection, watch & ward, commissioning and other services to the rendered under this specification.

5.6	Deployment of all erection tools & tackle, construction machinery, transportation vehicles and all other implements in adequate number and size, appropriate for the erection work to be handled under scope of this tender except otherwise specified.
5.7	Supply of all consumables, eg welding electrodes, cleaning agents, diesel oil, lubricant etc as well as materials required for temporary supports, scaffolding, etc as necessary for such erection work, unless specified otherwise.
5.8	Providing support services for the successful bidder's erection staff, eg, construction of site offices, temporary stores, residential accommodation and transport to work site for erection personnel, watch and ward for security and safety of the materials under the successful bidder's custody, etc, as required.
5.9	Maintaining proper documentation of all the site activities undertaken by the successful bidder as per the proforma mutually agreed with BHEL, submitting monthly progress reports as also any such document as & when desired by BHEL/ owner, taking approval of all statutory authorities (Factory Inspector, Labour Commissioner, etc) as applicable for respective portions of work under the jurisdiction of such statutes of laws.
5.10	All the materials issued to the bidder by BHEL shall be reconciled by the bidder and the unused materials have to be returned back to BHEL stores/yard or any other place as specified by BHEL.
5.11	Supply and application of final paint on all the equipment to be erected is under the scope of the successful bidder.
5.12	After completion of the commissioning activity of equipment/ systems, the successful bidder shall prepare the test reports which shall include all the relevant information related to various commissioning checks, tests carried out, any deviations/ commissioning noticed wrt the intended design requirements, sequence of various commissioning activities as actually adopted vis-à-vis as recommended in the procedures, programme schedule achieved and any other such information as required. These test reports shall be submitted in requisite number of copies to BHEL/ owner/ successful bidder involved during the commissioning activities.
5.13	After commissioning, load testing of the cranes to is to be conducted at site. Required load for the same may be arranged by BHEL. However, successful bidder to organize transport of the loads from BHEL store. Similarly on completion of load testing, the loads need to be returned to BHEL store by the successful bidder.
5.14	On completion of erection, commissioning, etc, cranes need to be tested & certified by statutory authority for its safe operation. Successful bidder to arrange for such testing and certification within his quoted price.
5.15	Any other service, although not specifically called for but required for a contract of the size and nature indicated in the specification.
<b>6.0</b>	<b>PROTECTION</b>
6.1	Equipment having anti-friction or sleeve bearings shall be protected by weather tight enclosures. Coated surfaces shall be protected against impact, abrasion, discoloration and other damages. Surfaces which are damaged shall be repainted.
6.2	Electrical equipment, controls and instrumentations shall be protected against moisture and water damages. All external gasket surfaces & flange faces, couplings, rotating equipment shafts, bearings and like items shall be thoroughly cleaned & coated with rust preventive compound and protected with suitable wood, metal or other substantial type covering to ensure their full protection. All exposed threaded parts shall be greased & protected with metallic or other substantial type protectors.
6.3	All tubing and conduit connections on equipment and equipment openings shall be closed with rough usage covers or plugs. Female threaded openings shall be closed with rough usage covers or plugs or forged steel plugs. The closures shall be taped to seal the interior of the equipment. Open ends of piping, tubing and conduit shall be sealed and taped.
6.4	All erected equipment/ components to be preserved as per the recommendation of equipment manufacturer. For this type of preservation, successful bidder shall engage an exclusive team of persons for meeting the continuous requirement. All preservatives and consumables including wire brush, emery papers, painting brush etc to be supplied by the successful bidder within the quoted rate.

<b>7.0</b>	<b>ERECTION SERVICE</b>
7.1	As part of the overall project management activity, the successful bidder shall be responsible for proper co-ordination of erection activities during various phases of execution of the contract. The successful bidder shall identify a person designated as construction manager, with whom BHEL shall interact on matters related to execution of the contract. The construction manager shall be the single point contact person on behalf of the successful bidder. BHEL shall interact with the construction manager only on all matters on co-ordination between BHEL and the successful bidder.
7.2	The successful bidder shall confine all field operations to those works which can be reformed without subjecting the equipment and materials to adverse effects, during inclement weather conditions, like monsoon, storms, etc and during other unfavorable construction conditions. No field activities shall be performed by the successful bidder under conditions which might adversely affect quality & efficiency thereof, unless special precautions or measures are taken by the successful bidder in proper and satisfactory manner in the performance of such works and with the concurrence of the engineer. Such unfavorable construction conditions in no way relieve the successful bidder of their responsibility to perform the works as per the schedule.
7.3	The successful bidder shall supply all skilled workmen like welders, gas cutters, electricians, riggers, sarangs, erectors, fitters, instrument machines etc, in addition to other skilled, semi-skilled and unskilled workmen required for all the works of handling and transportation from site store to erection site, erection, testing and commissioning contemplated under this specification. Only fully trained and competent men with previous experience on the job shall be employed. They shall hold valid certificates wherever necessary. BHEL reserves the right to decide on the suitability of the workers and the other personnel who will be employed by the successful bidder. BHEL reserves the right to insist on removal of any employee of the successful bidder at any time, if they find him unsuitable and the successful bidder shall forthwith remove him.
7.4	The supervisory staff employed by the successful bidder shall be technically qualified and experienced in the area of work. They shall ensure proper out turn of work and discipline on the part of labour put on the job by the successful bidder and in general see that the works are carried out in a safe and proper manner and in coordination with other labour and staff employed directly by BHEL or other agencies' of BHEL and BHEL's client/ consultant.
7.5	The successful bidder shall also furnish daily labour report showing by classification the number of employees engaged in various categories of work a progress report of work as required by BHEL engineer.
7.6	The work shall be executed under the usual conditions affecting major power plant construction and in conjunction with numerous other operations at site. The successful bidder and his personnel shall co-operate with other personnel, and other successful bidders, coordinating his work with others and proceed in a manner that shall not delay or hinder the progress of work as a whole.
7.7	The successful bidder's supervisory staff shall execute the work in the most substantial & workman like manner within stipulated time. Accuracy of work and aesthetic finish are essential part of this contract. The successful bidder shall be responsible to ensure that assembly & workmanship conform to the dimensions & tolerance given in the drawing/ instruction given by BHEL engineer from time to time.
7.8	It is the responsibility of the successful bidder to engage his workman in shifts or on overtime basis for achieving the target set by BHEL during erection, commissioning and testing period. Bidder's quoted rate shall include all these contingencies.
7.9	For rendering commissioning assistance during running of the unit till handing over of the set, dedicated gang along with an exclusive supervisor need to be deployed by the successful bidder to attend the incidental works of commissioning as per the instruction of BHEL commissioning engineer. They shall be equipped with all necessary hand-tools to attend all the incidental works during commissioning.
<b>8.0</b>	<b>HEALTH, SAFETY &amp; ENVIRONMENT</b>
8.1	It is imperative on the part of the successful bidder to join and effectively contribute

	in joint measures such as tree plantation, environment protection, contributing towards social up-liftment, conversion of packing woods to school furniture, keeping good relation with local populace etc.	
8.2	Round the clock experienced paramedical personnel with first aid facility & one ambulance including driver, fuel, etc, and shall be available at site, being provided by other agency. The above facilities will be shared by various BHEL contractors working at site (actual cost will be distributed among various contractors under BHEL at site proportionally to their contract price). The subject facility will be strengthened as per the requirement during peak work progress at site. Individual contractor may co-ordinate with the supplying/ providing agency in this regard. No medical facility within/ near the site shall be provided by BHEL. In case such facility is not provided by successful bidder, BHEL will recover cost as applicable. Decision of BHEL in this regard shall be final & binding on successful bidder.	
8.3	No staff quarter shall be provided by BHEL.	
8.4	No borrow area for earth shall be arranged/ provided by BHEL.	
8.5	Common road shall be provided by BHEL free of cost, however, temporary approaches for erection/work spots under the scope of work, as required for movement of cranes, trailers, trucks, transit mixers, dumpers, etc. Shall be arranged by the successful bidder at their own cost.	
8.6	The successful bidder shall solely be responsible for the safety, quality, & quantity of material after it is handed over and issued to successful bidder by the BHEL.	
8.7	The successful bidder shall ensure the safety of all workmen, materials and equipment either belonging to him or to others working at site. He shall observe safety rules and codes applied by the BHEL at site without exception.	
8.8	Passenger lift for construction purpose should have safety cage with multiple rope, ie with safety rope & limit switch.	
8.9	Safety nets with hand railings must be provided on all both inside & outside hanging platform of slip-form equipment & hanging platform from brickwork.	
8.10	Emergency vehicle must be provided & kept separately as stand-by.	
8.11	Non-conformity of safety rules and safety appliances will be viewed seriously and BHEL has right to impose fines on the successful bidder on each incident/ each non-conformity as per details given below.	
	Safety measure	Fine (Rs)
8.11.1	Not wearing safety helmet at site.	50
8.11.2	Not wearing safety shoes at site.	50
8.11.3	Not wearing safety belt while working at higher elevation	100
8.11.4	Not providing lifeline of safety belt	100
8.11.5	Not using grinding goggles while doing grinding operations	50
8.11.6	Not using 24V supply for lighting in confined spaces.	500
8.11.7	Improper earthing of welding & other electrical machines.	500
8.11.8	Electrical plug not used for hand machines	100
8.11.9	Not slinging properly	200
8.11.10	Using damaged slings	200
8.11.11	Using frayed/ broken welding cables	200
8.11.12	Non removal of scarp from platforms	200
8.11.13	Lifting cylinders without cage	500
8.11.14	Gas cutting without taking proper precautions or not using sheet below	200
8.11.15	Not maintaining electrical winches properly	500
8.11.16	Shorting of fuse links by thick wire	500
8.11.17	Over speeding of vehicles within in site premise	200
8.11.18	Not having valid driving license for type of vehicle being driven	500
8.11.19	Not having valid registration for the vehicle	500
8.11.20	Not providing proper barricades/ caution boards	200
8.11.21	Not displaying SWL on the lifting equipment	200
8.11.22	Sub-contractor not attending safety meeting	1000
8.11.23	Improper ladder for climbing up	500
8.11.24	Improper scaffolding arrangement	500
8.11.25	Engaging child labour for construction work	1000

8.11.26	Using domestic LPG cylinder for gas cutting/ welding operations	500
8.11.27	Not maintaining first aid box	500
8.11.28	Working without work permit/ clearance	5000
8.11.29	Working at height without full body harness, using non-standard/ rejected scaffolding and not arranging fall protection arrangement as required like safety rules.	3000
8.11.30	Unsafe handling of compressed gas cylinders (No trolley, jubilee clips double gauge regulator, improper storage/ handling etc)	100
8.11.31	Non-fencing of/ barricading excavated areas.	1000
8.11.32	Not providing shoring/ strutting/ proper slope and not keeping the excavated earth at least 1.5 mtr away from excavated area.	5000
8.11.33	Non display of caution board, list of hospitals, emergency services available at work locations.	500
8.11.34	Traffic rules violation like over-speeding of vehicle, rash driving, not using seat belts, vehicle not fitted with reverse warning alarms.	1000
8.11.35	Absence of successful bidder's concerned representative at site safety meeting, whenever called by BHEL/ owner.	5000
8.11.36	Failure to maintain safety records.	1000
8.11.37	Failure to conduct daily safety site inspection. HSE meeting and HSE audit at predefined frequencies.	1000
8.11.38	Failure to submit monthly HSE report as per stipulated schedule to BHEL.	5000
8.11.39	Degradation of environment (Not confining toxic spills, spilling oil/ lubricants onto ground.	1000
8.11.40	Not medically examining workers before allowing them to work at height, not providing ear muffs while allowing them to work in noise polluted areas, made them to work in air polluted areas without respiratory protective devices, etc.	1000
8.12	Any other nonconformity noticed not listed above will also be fined. The decision of BHEL engineer is final on the above. The amount will be deducted from running bills of the successful bidder. The amount collected on the above will be recognized for giving award to the employee who could avoid accidents by following safety rules. Also, the amount will be spent for improving the safety at site.	
8.13	The successful bidder shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislation and BHEL, as he may deem necessary.	
8.14	The successful bidder will notify well in advance to BHEL of their intention to bring to BHEL any container filled with liquid or gaseous fuel or explosive or petroleum substance or such chemicals, which may involve hazards. BHEL shall have the right to prescribe the conditions, under which such container is to be stored, handled and used during the performance of the works and the successful bidder shall strictly adhere to and comply with such instructions. BHEL shall have the right at their sole discretion to inspect any such container or such construction plant/ equipment for which material in the container is required to be used and if in their opinion, its use is not safe, they may forbid its use. BHEL shall entertain no claim due to such prohibition and BHEL shall not entertain any claim of the successful bidder towards additional safety provisions/ conditions to be provided for/ constructed as per BHEL's instructions.	
8.15	Further, any such decision of the BHEL shall not, in any way, absolve the successful bidder of his responsibilities and in case, use of such a container or entry thereof into the site area is forbidden by the BHEL, the successful bidder shall use alternative methods with the approval of the BHEL without any cost implication to BHEL or extension of work schedule.	
8.16	Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosives, the successful bidder shall be responsible for carrying-out such provision and/or storage in accordance with the rules and regulations laid down in Petroleum Act 1934, Explosives Act, 1948, and Petroleum and Carbide of Calcium Manual published by the Chief Inspector of Explosives of India. All such storage shall have prior approval of the BHEL. In case, any approvals are necessary from	

	the Chief Inspector (Explosives) or any statutory authorities, the successful bidder shall be responsible for obtaining the same.
8.17	All equipment used in construction and erection by successful bidder shall meet Indian/ International Standards and where such standards do not exist, the successful bidder shall ensure these to be absolutely safe. All equipments shall be strictly operated and maintained by the successful bidder in accordance with manufacturer's operation Manual & Safety instructions and as per guidelines/ rules of BHEL in this regard.
8.18	Periodical examinations and all tests for all lifting/ hoisting equipment & tackles shall be carried-out in accordance with relevant provisions of Factories Act 1948, Indian Electricity Act 1910 and associated laws/ rules in force from time to time. A register of such examinations & tests shall be properly maintained by successful bidder and will be promptly produced as & when desired by BHEL or by the person authorized.
8.19	Successful bidder shall be fully responsible for safe storage of their and their sub-contractor's radioactive sources in accordance with BARC/ DAE (Bhabha Atomic Research Centre/ Department of Atomic Energy, Govt of India) rules and other applicable provisions. All precautionary measures stipulated by BARC/ DAE in connection with use, successful bidder would take storage and handling of such material.
8.20	Successful bidder shall provide suitable safety equipment of prescribed standard to all employees and workmen according to the need, as may be directed by BHEL who will also have right to examine these safety equipments to determine their suitability, reliability, acceptability and adaptability.
8.21	Where explosives are to be used, the same shall be used under the direct control and supervision of an expert, experienced, qualified and competent person strictly in accordance with the Code of Practices/ Rules framed under Indian Explosives Act pertaining to handling, storage and use of explosives.
8.22	The successful bidder shall provide safe working conditions to all workmen and employees at the Site including safe means of access, railings, stairs, ladders, scaffoldings etc. The scaffoldings shall be erected under the control and supervision of an experienced and competent person. For erection, the successful bidder only shall use good and standard quality of material.
8.23	The successful bidder shall not interfere or disturb electric fuses, wiring and other electrical equipment belonging to BHEL or other successful bidders under any circumstances, whatsoever, unless expressly permitted in writing by BHEL to handle such fuses, wiring or electrical equipment.
8.24	Before the successful bidder connects any electrical appliances to any plug or socket belonging to the other contactor or BHEL, he shall • torag following.
8.24.1	Satisfy BHEL that the appliance is in good working condition.
8.24.2	Inform BHEL of the maximum current rating, voltage and phases of the appliances.
8.24.3	Obtain BHEL's permission detailing sockets to which appliances may be connected.
8.25	The BHEL will not grant permission to connect until following are complied with.
8.25.1	The appliance is in good condition and is fitted with suitable plug;
8.25.2	The appliance is fitted with a suitable cable having two earth conductors, one of which shall be an earthed metal sheath surrounding the cores.
8.26	No electric cable in use by successful bidder/ BHEL will be disturbed without prior permission. No weight of any description will be imposed on any cable and no ladder or similar equipment will rest against or attached to it.
8.27	No repair work shall be carried out on any live equipment. BHEL must declare the equipment safe and a permit to work shall be issued by BHEL before the successful bidder carries out any repair work. While working on electric lines/equipments whether live or dead, suitable type and sufficient quantity of tools will have to be provided by successful bidder to electricians/ workmen/ officers.
8.28	The successful bidders shall employ necessary number of qualified electricians/ electrical supervisors to maintain temporary electrical installations.
8.29	The successful bidder shall employ trained safety officer to supervise day to day safety aspects of the equipments and workmen, who will co-ordinate with BHEL safety officer. In case of work being carried out through sub-contractors, sub-contractor's workmen/ employees will also be considered as the successful bidder's

	employees/ workmen for the above purpose.	
8.30	Name & address of safety officer of successful bidder will be promptly informed in writing to BHEL with a copy to safety officer-In charge before he starts work or immediately after any change of the incumbent is made during currency of contract.	
8.31	In case any accident occurs during the construction/ erection or other associated activities undertaken by the successful bidder thereby causing any minor or major or fatal injury to his employees due to any reason, whatsoever, it shall be the responsibility of the successful bidder to promptly inform the same to BHEL in prescribed form and also to all the authorities envisaged under the applicable laws.	
8.32	BHEL shall have the right at his sole discretion to stop the work, if in his opinion the work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/ or property, and/ or equipments. In such cases, the successful bidder shall be informed in writing about the nature of hazards and possible injury/ accident and he shall comply to remove shortcomings promptly.	
8.33	The successful bidder shall not be entitled for any damages/ compensation for stoppage of work due to safety reasons above and the period of such stoppage of work will not be taken as an extension of time for completion of the facilities and will not be the ground for waiver of levy of penalty.	
8.34	The successful bidder shall follow and comply with all safety rules of BHEL, relevant provisions of applicable laws pertaining to the safety of workmen, employees plant and equipment as may be prescribed from time to time without any demur, protest or contest or reservation. In case of any inconformity between statutory requirement and Safety Rules of BHEL referred above, the later shall be binding on successful bidder unless the statutory provisions are more stringent.	
8.35	In case BHEL pay such compensation, then the successful bidder are liable to reimburse BHEL such amount in addition to compensation indicated above.	
8.36	Insurance covers have to be taken prior to start of work at site and they shall make available the policy to Construction Manager, BHEL for necessary verification prior to commencement of work. However, irrespective of such verification/ acceptance, it's responsibility of successful bidder to maintain adequate insurance cover for their workmen, T&P, assets, etc at all times during the period of contract. Regarding the aforesaid insurance cover, the successful bidder shall directly deal with Insurance Company for all matters regarding the insurance in their scope.	
8.37	If the successful bidder do not take all safety precautions and/or fails to comply with the Safety Rules as prescribed by BHEL/ customer or under the applicable law for the safety of the equipment & plant and for the safety of personnel and the successful bidder do not prevent hazardous conditions which cause injury to their employees or employees of other contractors, or BHEL's employees or any other person who are at site or adjacent thereto, the successful bidder shall be responsible for payment of compensation to employer as per following schedule.	
8.37.1	Fatal injury or accident causing death	Rs.2,00,000 per person
8.37.2	Major injuries or accident causing 25% or more permanent disablement to workmen or employees.	Rs 50,000 per person
8.38	Successful bidder shall refer to BHEL or customer's safety manual, available at site, and comply with its directives/ stipulations during execution of the job.	
<b>9.0</b>	<b>SPECIFIC REQUIREMENTS FOR ISO 9002</b>	
9.1	Successful bidders shall ensure that all their staff/ employees are exposed to periodical training programmes conducted by qualified agencies/ personnel on ISO 9002 Standards.	
9.2	Successful bidder shall ensure that the quality is maintained in all the works connected with this contract at all stages of the requirement of BHEL.	
9.3	Successful bidder shall ensure that all MMDs that are used, whether owned by the successful bidders or used on loan, are calibrated by the authorized agencies and the valid calibration certificate will be available with them for verification by BHEL. A list of such instruments possessed by the successful bidder at site with its calibration status is to be submitted to BHEL Engineer for control.	
9.4	Successful bidder shall ensure that fitness certificate of the tools & plants, that are in use, whether owned by successful bidder or issued on loan, are tested by authorised agency and valid fitness certificate is available for verification by BHEL.	

9.5	Successful bidders shall arrange for the inspection of the works at various stages as required by BHEL. The successful bidders shall take immediate corrective action for the non-conformances if any, observed and pointed out by BHEL.
<b>10.0</b>	<b>SPECIFIC SAFETY REQUIREMENT FOR THE PROJECT</b>
10.1	The successful bidder shall ensure adherence to the requirement of safety connected with this work. They shall provide necessary safety appliances to their workmen and supervisors and ensure use of the same to prevent loss of human lives, injuries to men engaged and damage to property and environment. Safety guidelines of BHEL/ customer shall be applicable.
10.2	Successful bidder shall obtain necessary work permits from BHEL/ customer prior to taking up any work on the system. He shall arrange for display of due and necessary caution notices/ boards, etc.
10.3	All electrical equipment, connections and wiring for construction power, its distribution and use shall conform to the requirements of Indian electricity act and rules. Only electricians licensed by the appropriate statutory authority shall be employed by the successful bidder to carryout all types of electrical work. All electrical appliances including portable electric tools used by the successful bidder shall have safe plugging system to source of power and be appropriately earthed.
10.4	The successful bidder shall be held responsible for any violation of statutory regulations (local, state or central) and BHEL instructions that may endanger safety of men, equipment, material and environment in his scope of work or another contractors or agencies. Cost of damage, if any, to life & property arising out of such violation of statutory regulations shall be borne by the successful bidder.
10.5	In case of a fatal or disabling injury/ accident to any person at site due to lapse by the successful bidder, the victim and/ or his/ her dependants shall be compensated by the successful bidder as per statutory requirements. However, if considered necessary, BHEL shall have the right to impose appropriate financial penalty on the successful bidder and recover the same from payments due to the successful bidder for suitably compensating the victim and/ or his/ her dependants. Before imposing any such penalty, appropriate enquiry shall be held by BHEL giving opportunity to the successful bidder to present their case.
10.6	In case of any damage to property due to lapses by the successful bidder, BHEL shall have the right to recover cost of such damages from payments due to the successful bidder after holding an appropriate enquiry.
10.7	In case of any delay in the completion of a job due to mishaps attributable to lapses by the successful bidder, BHEL shall have the right to recover cost of such delay from payments due to the successful bidder after notifying the contractor suitably and giving them opportunity to present their case.
10.8	If the successful bidder fail to improve the standards of safety in its operation to the satisfaction of BHEL after being given a reasonable opportunity to do so, and/ or if the successful bidder fail to take appropriate safety precautions or to provide necessary safety devices & equipment or to carry out instruction regarding safety issued by BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the successful bidder after giving a notice of not less seven days indicating the steps that would be taken by BHEL.
10.9	The successful bidder shall submit report of all accidents, fires and property damage, dangerous occurrences to the BHEL official immediately after such occurrence but in any case not later than twelve hours of the occurrence. Such report shall be furnished in the manner prescribed by BHEL. In addition, periodic reports on safety shall also be submitted by the successful bidder to the authorized BHEL official time to time as prescribed
<b>11.0</b>	<b>LAND</b>
11.1	Land, as/if available from owner, will be provided, free of cost, by BHEL to the extent available/ considered necessary by BHEL to the successful bidder for their office, store within/outside plant premises. <b>However, if the sufficient land is not available from owner, successful bidder has to arrange the same within the quoted rates.</b>
11.2	The successful bidder shall arrange at his own cost cleaning and grading of area allotted, construction of their temporary office, stores, godown, fabrication yards etc.

	and also the watch & ward, etc.
11.3	The successful bidder will be responsible for handing back all lands, as allotted to them by BHEL/owner.
11.4	The successful bidder has to handover the land back to owner on completion of the work, in the similar condition as handed over by the owner. Any temporary/permanent structure constructed during the execution has to be removed/demolished at the time of handing over the land back to customer.
<b>12.0</b>	<b>WATER</b>
12.1	Successful bidder shall have to arrange construction as well as potable water as per requirement within the quoted rate.
<b>13.0</b>	<b>ELECTRICITY</b>
13.1	On getting power from owner, BHEL will provide construction power free of charges at 415 V level at one strategic point(s) near owner's existing pump house/any other suitable location. Successful bidder shall make their own distribution arrangement to draw electricity. However, till such time, successful bidder shall arrange construction power approx. for a period of approx. two months from start of work at site, within the quoted rates.
13.2	Vendor has to arrange illumination as per requirement for the entire area during construction. Illumination should be such that minimum illumination requirement as specified by Indian Standards for general illumination is maintained.
13.3	If any other voltage level (other than normally available) is required, the same shall be arranged by successful bidder from power supply as above. Successful bidder will have to provide at their own cost necessary calibrated energy meters (tamper proof, suitably housed in a weather proof box with lock & key arrangement) at point of power supply along with calibration certificate from authorized/ accredited agency for working out the power consumption. In case of recalibration required for any reason, necessary charges including replacement by calibrated meters is to be borne by successful bidder. Supply of electricity shall be governed by Indian Electricity Act and Installation Rules and other Rules & Regulation as applicable. In case of any major deviation from normally accepted norms is observed, BHEL will reserve the right to impose penalty as deemed fit for such cases.
13.4	Successful bidder shall have to provide earth leakage circuit breaker at each point wherever human operated electrical drives/ T&Ps are deployed.
13.5	BHEL shall not be responsible for any inconvenience or delay caused due to any interruption of power supply/ variation in voltage level and no compensation for delay in work can be claimed by the successful bidder due to such non-supply on the grounds of idle labour, machinery or any other grounds.
13.6	Successful bidder should ensure that the work in critical areas is not held up in the event of power breakdown. In the event of breakdown in the electric supply, if the progress of work is hampered, it will be the responsibility of the successful bidder to step up the progress of work after restoration of electric supply so that overall progress of work is not affected.
13.7	Successful bidder has to make arrangement at their own cost for illumination for their working area for execution of the work & safety of workmen.
13.8	Though the construction power is provided free of charge, it is the responsibility of the successful bidder to ensure efficient utilization of electricity. Suitable audit shall be carried out jointly by BHEL & successful bidder on a periodic basis to ensure the same. In case at any point of time it is found that construction power is being used inefficiently or for any other purpose than the intended use, the successful bidder will be suitably penalized as per the provision of the contract. The maximum penalty that can be imposed on the successful bidder shall be limited to one month's electricity charges (as will be obtained from the energy meter point) per incident of inefficient use or misuse.
13.9	Successful bidder shall make their own arrangement of electricity for labour colony. BHEL shall not provide electricity for labour colony of successful bidder.
<b>14.0</b>	<b>FACILITIES TO BE PROVIDED BY THE SUCCESSFUL BIDDER</b>
14.1	<b>TOOLS, TACKLES AND SCAFFOLDINGS</b>
	The successful bidder shall provide all the construction equipments, tools, tackles & scaffoldings required for pre-assembly, erection, testing and commissioning of the

	equipments covered under the contract. He shall submit a list of all such materials to BHEL/ customer before the commencement of pre-assembly at site. These tools & tackles shall not be removed from the site without written permission of BHEL. The T&Ps to be arranged by the successful bidder shall be in proper working condition.
14.2	<b>COMMUNICATION</b> The successful bidder shall be responsible for arranging all communication facilities for himself at site. The successful bidder has to establish independent internet/e-mail facilities with mobile connection for all key site personnel and same shall have to be integrated with BHEL's voice/data network and database systems at site.
14.3	<b>FIRST-AID</b> The successful bidder shall provide necessary first-aid facilities for all their employees, representatives and workmen working at the site. First-aid centre with ambulance facility is established & maintained at site by BHEL/ BHEL's agency. All agencies of BHEL including successful bidder of this package are expected to contribute towards establishing & maintaining the facility and the sum of contributions should be proportionate to their respective contract prices. This may be treated as mandatory stipulation and the bidder should carryout due visioning work with BHEL/ BHEL's agency for smooth running of the first-aid centre and ambulance. In the event of non-compliance of this, BHEL shall be constrained to pay the contribution and recover the cost with 30% overhead from the bill of the successful bidder.
14.4	<b>CLEANLINESS</b>
14.4.1	The successful bidder shall be responsible for keeping the entire area allotted to him clean and free from rubbish, debris etc. during the period of contract. The successful bidder shall employ enough number of special personnel to thoroughly clean his work-area at least once in a day. All such rubbish and scrap material shall be stacked or disposed in a place to be identified by BHEL/ customer. Materials and stores shall be so arranged to permit easy cleaning of the area. In areas where equipment might drip oil and cause damage to the floor surface, a suitable protective cover of a flame resistant, oil proof sheet shall be provided to protect the floor from such damage.
14.4.2	Similarly the labor colony, the offices and the residential areas of the successful bidder's employees and workmen shall be kept clean and neat to the entire satisfaction of BHEL/ customer. Proper sanitary arrangements shall be provided by the successful bidder, in the work-areas, office and residential areas of the successful bidder.
14.4.3	Bidders to note that following.
14.4.3.1	No staff quarter shall be provided by BHEL.
14.4.3.2	All site execution approaches required for movement of cranes, trailers, trucks, dumpers, etc shall be provided by BHEL. However, if any minor work filling/leveling is required to be done, that shall arranged by the successful bidder at their own cost.
14.4.3.3	The successful bidder shall solely be responsible for the safety, quality, & quantity of material after it is handed over and issued to successful bidder by the BHEL.
14.5	<b>MEDICAL FACILITY</b> BHEL/ authorized agency will set up medical facilities including mobile medical aid in comprehensive manner for total requirement of the project and to fulfill their basic requirement. In such case, total expenditure words setting up and maintain the facilities will be apportioned amongst all agencies of BHEL in proportion to their contract prices.
<b>15.0</b>	<b>PROJECT MANAGEMENT</b>
15.1	<b>CONSTRUCTION SCHEDULE</b>
15.1.1	The successful bidder shall furnish an offer stage master network/ bar chart (L1 schedule) in accordance with the project milestone schedule. The contract master bar chart will be negotiated with the successful bidder.
15.1.2	Within thirty (30) days of the letter of intent date, successful bidder shall submit to purchaser the detailed Master Schedule (L2 schedule) along with summary network/ bar chart (L1 schedule) for approval. L2 schedule shall be the working level document demonstrating successful bidder's ability and methods of completing the work within the key milestones identified in the tender specification.

15.1.3	The schedule shall be based on a computerized logic network. The level of detail shall be sufficient to break down the work scope into manageable and measurable activities acceptable to Purchaser. All activities shall have durations in days.
15.1.4	The successful bidder shall provide a detailed activity bar chart based on the resource scheduled logic network. The bar chart shall contain activity descriptions, planned start and finish dates with the critical path activities clearly identified. The network / bar chart shall be updated weekly to indicate actual progress.
15.1.5	The schedule shall include the required dates of all external input required to execute the plan. In addition this shall clearly show all sub-contract award dates and sub-activities right from preparation of specification & floating of tender.
15.2	<b>TEMPORARY FACILITIES FOR MONITORING</b>
15.2.1	<p>The bidder will have to install 3 nos. PCs (multimedia PC work station Pentium- Core-i5-650, 3.2 GHZ or above, 500 GB HDD, 4 GB RAM, 100/1000 MBPS LAN card) of HCL/ COMPAQ/ ZENITH or equivalent make with window 8 or higher, 64 bit (with roll back to 32 bit O/S and required software like MS Office 2010 or higher, AutoCAD 2014 or higher, PageMaker (7.0 etc), ADOBE PDF CREATOR with one no laser jet printer compatible for A3 size printing (ink/ cartridge for which to be supplied as and when required), two no. laser jet printer compatible for A4 size printing (ink/ cartridge for which to be supplied as and when required) with power backup at places, as per instruction of BHEL for exclusive use of BHEL.</p> <p>These computers/ printers shall remain contractor's property and they will be allowed to take out the same after completion of contract period. The contractor shall provide data / information etc. in prescribed formats for periodical updating of the progress reports, material management reports, updating of network pertaining to the contractor's scope of work etc.</p> <p>The contractor shall also provide (two) nos. computer operators and 2 (two) numbers service staff for miscellaneous service for BHEL's use at site/ Kolkata for reconciliation, progress review &amp; day-to-day planning purpose, documentation etc. These facilities are to be provided within 30 days from LOI date till completion of scheduled contract period.</p> <p>The contractor shall also responsible to deposit the PF,ESI etc as per Govt. rules on behalf of their supplied supporting staff ( computer operators and service staff) and documents proof will be produced to BHEL for verification.</p> <p>If contractor fails to provide computer / printer / personnel as per requirement, for a continuous period of fifteen days or more, BHEL shall have the right to deduct the amount as per following rates on prorata basis, from contractor's RA bill or any other dues.</p>
15.2.1.1	@ Rs 15,000/- (Fifteen thousand)/ month for each computer operator.
15.2.1.2	@ Rs 12,000/- (Twelve thousand) / month for each service staff.
15.2.1.3	@ Rs 15,000/- (Fifteen thousand)/ month for each set of computer & printer.
15.2.1.4	In the event of the contract period getting extended beyond the stipulated time for reasons not attributable to you, above services may either be withdrawn or retained as per instruction of BHEL. If services are retained, you will be reimbursed at the above 70% of the mentioned rate or (actual +15%), whichever is lower, if the services of operator / service staff are being used by BHEL.
15.2.2	The contractor's site office must have facilities of communications like Fax, E-mail, and telephone with STD facility within a month from LOI.
15.3	<b>PROGRESS MEASUREMENT AND MONITORING</b>
15.3.1	The successful bidder shall measure progress of the work using its own methods and procedures preferably in prima-Vera.
15.3.2	Weekly progress review meetings will be held at site during which actual progress during the week vis-à-vis scheduled program shall be discussed and action to be taken for achieving targets will be decided. For discussions, the successful bidder shall present program of subsequent week. The successful bidder shall constantly update/revise his work program to meet the overall requirement.

15.3.3	Periodic progress reviews on the entire activities of execution in respect of engineering, quality, procurement, supply and works in scope of bidder will be held once in a month at Kolkata/ site/ successful bidder's premise/ BHEL/ PEM, Noida or any other convenient premise. These meetings will be attended by reasonably higher officials of the successful bidder along with its sub-vendors & consultant as applicable and will be used as a forum for discussing all areas where progress needs to be speeded up. The successful bidder shall be further responsible for ensuring that suitable steps are taken to meet various targets decided in such meetings.
15.3.4	Successful bidder shall identify separate overall Project Manager, Construction Manager, Engineering Manager, Quality Manager and selection of various Key personnel shall be subject to BHEL approval.
15.3.5	The bidder should also ensure monitoring of all the activities at least on weekly basis to start with and on daily basis whenever required by BHEL.
15.4	REPORTING
15.4.1	The successful bidder shall submit weekly progress reports to purchaser in the agreed formats submitted in adequate number of signed originals. The report shall include -
15.4.1.1	Brief narrative of work performed during the week.
15.4.1.2	CMS bar chart showing progress at activity level.
15.4.1.3	Updated progress 'S' Curves showing actual progress.
15.4.1.4	Milestones achieved and new activities started.
15.4.1.5	Status of critical activities.
15.4.2	The successful bidder shall submit monthly progress reports to Purchaser in the agreed formats submitted in adequate number of signed originals. The report shall include the weekly report content and shall be supplemented with the following.
15.4.2.1	Engineering status.
15.4.2.2	Procurement status.
15.4.2.3	Manufacturing status.
15.4.2.4	Inspection & • dispatch status.
15.4.2.5	Material in transit.
15.4.2.6	Erection & commissioning status.
15.4.2.7	Safety report.
15.4.2.8	Change order status.
15.4.2.9	Updated L1/L2 schedule indicating status.
15.4.2.10	Executive summary, areas of concern etc.
15.4.2.11	Progress photographs.
15.4.3	Adequate numbers of color photographs, in triplicate, (matt paper, post card size for each area per month of the contract execution period), depicting progress of the work or damage to the machine parts, if any, as directed by BHEL site engineer is to be arranged by the successful bidder at his own cost.
15.4.4	The progress report shall be compiled in computer and is required to be furnished over e-mail, in addition to hard copies and summary report shall be made 'Web enabled' in agreed format.
15.5	SITE ORGANIZATION
15.5.1	The successful bidder shall maintain a site organization of adequate strength in respect of manpower, construction machinery and other implements at all time for smooth execution of the contract headed by a competent Site incharge for site operations with sufficient level of authority to take site decisions. The successful bidder will submit organization chart (showing the name of Site Incharge) with individual bio-data indicating various levels of experts to be posted for supervision in the fields of supervision and execution, quality, material management, planning, safety, etc. The organization shall be reinforced from time to time, as required to make up slippage (if any) from schedule without any commercial implication to BHEL. The organization chart is to be submitted within 10 days from the date of LOI.
15.5.2	The Site In-charge once approved and posted at site, should not be changed through-out the contract period, without written permission from BHEL.
15.5.3	Following (minimum) manpower with power plant construction background to be deployed at site by the successful bidders for their day to day supervision, etc for execution of the scope as per the stipulated deployment plan or otherwise agreed

	with Construction Manager, BHEL, in writing.	
15.5.3.1	Qualified safety officers with assistants (exclusive for safety supervision for project jobs).	One no. officer from start of work
15.5.3.2	Engineer / Supervisors for quality inspection.	One Engineer (Civil + Structural) & one supervisors (Civil + Structural).  One no. from start of work and rest as per requirement.
15.5.3.3	Site supervising engineer and supervisors for civil works	One Engineer & Two nos. supervisors.  One no. from start of work and rest as per requirement.
15.5.3.4	Site supervising engineer and supervisors for Structural job.	One nos. Engineer & one no. supervisors.  One no. from start of work and rest as per requirement.
15.5.3.5	Chemist/Quality engineer for Civil Laboratory	One no. from start of work.
15.5.3.6	Planning Engineer (exclusively for planning)	One no. Engineer from start of Site Mobilization
15.5.4	Deputation of above man-power shall be jointly decided at site in line with construction schedule. Engineer/ supervisor for other functions like store/ purchase, material management, planning, FIN, administration, safety, etc. are to be provided as per site requirement.	
15.5.5	Further induction of manpower regarding site supervisor & site engineer will be decided at site as per requirement and shall be deployed by successful bidder within the accepted rates.	
15.5.6	In the event of failure of the successful bidder to provide necessary manpower indicated above as per requirement for a continuous period of 2 days or more, BHEL reserve the right to deduct Rs 50,000 per man-month for engineer, Rs 30,000 per man-month for the diploma holder supervisor/ safety/ quality officer/ NDT specialist, Rs 15,000 for skilled worker, Rs 10,000 for semi-skilled/ un-skilled worker, from the date of deputation as indicated as above from RA bills. Further induction of manpower regarding site supervisor & site engineer will be decided at site as per requirement. Further induction of manpower regarding site supervisor & site engineer will be decided at site as per requirement.	
15.5.7	BHEL reserve the right to reject or approve the list of personnel proposed by the successful bidder. The persons whose bio-data have been approved by BHEL will have to be posted at site and deviation in this regard will not be permitted unless specific & reasonable justification is made.	
15.6	<b>GENERAL</b>	
15.6.1	The successful bidder shall be responsible for planning and scheduling the work and reporting its progress in a manner, format and level of detail acceptable to BHEL. These plans shall be in accordance with the intermediate milestones and the completion dates as specified by and agreed in the Contract.	
15.6.2	The successful bidder shall be responsible for reporting progress to purchaser on a weekly and monthly basis. Progress reports shall be presented in a clear and logical fashion preferably through a software disc and in PDS format mutually agreed between BHEL and successful bidder.	
<b>16.0</b>	<b>CONSUMABLE</b>	
16.1	All consumables, like gas, electrodes, chemicals, lubricants, erection & commissioning spares etc required for the job shall be arranged by the successful bidder at his cost unless otherwise specifically mentioned in the contract.	
16.2	All consumables to be used for the job shall be approved by BHEL prior to use.	
16.3	In the event of failure of successful bidder to bring necessary and sufficient consumables, BHEL may arrange for the same at the risk and cost of the successful bidder. The entire cost towards this along-with overhead shall be paid by the	

	successful bidder or deducted from the successful bidder's bills.
<b>17.0</b>	<b>MMD</b>
17.1	The successful bidder shall ensure deployment of reliable & calibrated measuring and monitoring devices (MMD). The MMDs shall have test calibration certificate from authorized/ Govt approved agencies. The successful bidder shall also keep provision of alternate engagement for such MMDs so that the work does not suffer when a particular IMTE is sent for calibration. Re-testing/ re-calibration shall also be arranged by the successful bidder at their own cost at regular interval during the period of use as advised by BHEL.
17.2	In the event of failure of successful bidder to bring necessary and sufficient MMDs, BHEL may arrange for the same at the risk & cost of the successful bidder. The entire cost towards this along-with overhead shall be paid by the successful bidder or deducted from the successful bidder's bills.
17.3	List of tentative MMD required for the job is furnished in relevant annexure of the tender, for guidance purpose.
<b>18.0</b>	<b>TEST CERTIFICATE FOR T&amp;P</b>
18.1	All T&P, lifting tackles and pulling devices to be deployed by the successful bidder must bear valid/ latest test certificates for their suitability, and documents shall be preserved at site.
18.2	In case of expiry of validity of any such test certificate during construction, successful bidder shall arrange for revalidation of the same well in advance, so that the construction activities do not suffer on account of non-availability of such Test certificates.
18.3	The successful bidder should also submit to BHEL for approval a list of T&Ps along with their fitness certificates. The tools & tackles shall not be removed from site without written permission of BHEL.
<b>19.0</b>	<b>ISSUE OF T&amp;Ps</b>
19.1	Deployment of all T&Ps for this tender shall be successful bidder's responsibility. However, if BHEL issues any T&Ps, the same shall be on chargeable basis as per BHEL norms.
19.2	In the event of BHEL issued T&Ps, measuring instruments etc, successful bidder and BHEL shall maintain joint protocol about the condition of all T&P, instruments etc taken from BHEL's custody and return to BHEL after use. The successful bidder shall not use these equipment for purposes other than the scope of work given in this tender document.
19.3	It is the responsibility of successful bidder to keep these equipments always in working condition and ensure their safe return in working condition to BHEL's store subject to normal wear & tear.
19.4	After use of T&P items issued by BHEL the same shall be returned to BHEL in good working condition subject to normal wear & tear failing which recoveries at the book value of the item or the market rate prevailing at the time of returning the items, whichever is higher shall be made from the payments due to the successful bidder from BHEL from this contract or from any other contract.
<b>20.0</b>	<b>AREA REQUIREMENT</b>
	The successful bidder shall furnish the estimated area required for the construction of his office, stores, etc separately. The same will be reviewed by BHEL and allotted to the extent available/ considered necessary, depending upon the area availability.
<b>21.0</b>	<b>CONSTRUCTION OF TEMPORARY OFFICE, STORES ETC</b>
21.1	The successful bidder shall arrange at his own cost the construction of his temporary office, stores, fabrication yards, labour colony etc. and also the watch & ward of all above.
21.2	<b>The successful bidder shall construct one no. closed storage shed of adequate size for safe storage of material. It may be constructed inside/outside plant premises and shall have locking facility to avoid theft. Round the clock security arrangement shall be arranged by the bidder</b>
<b>22.0</b>	<b>RECONCILIATION OF MATERIALS</b>
22.1	Successful bidder shall submit a reconciliation statement of material after completion of job.
22.2	The successful bidder shall return the unused plant materials under their custody to

	BHEL's store/ yard at their own cost.
<b>23.0</b>	<b>TRAINING OF OWNER'S/ PURCHASER'S PERSONNEL</b>
	The successful bidder shall undertake to train free of cost personnel selected and sent by the owner/ purchaser to the works of successful bidder. The period and nature of training and number of individual personnel shall be agreed upon mutually between the successful bidder and owner/ purchaser. These engineers shall be given special training in the shops where the equipment shall be manufactured or in any other power plant where manufactured equipment is under installation or test to enable them to become familiar with the equipment being supplied to the purchaser. In the event of the owner/ purchaser for any reason failing to avail of the training facilities, purchaser shall not be entitled to any rebate whatsoever on this account.
<b>24.0</b>	<b>INSURANCE</b>
24.1	It is the entire responsibility of the successful bidder to insure their workmen against accident and injury while at work as required by the relevant rules and to pay compensation, if any, to their workmen as per workmen's compensation act. The successful bidder shall also insure their staff against accident/ injury.
24.2	The successful bidder shall take insurance cover for all materials, tools & plants, etc, required to be provided & deployed for the job.
24.3	These insurance covers have to be taken prior to start of work and they shall make available the policy to Construction Manager, BHEL for necessary verification before start of work. However, irrespective of such verification/ acceptance, sole responsibility to maintain adequate insurance cover at all times during the period of contract shall lie with the successful bidder. Regarding aforesaid insurance cover, the successful bidder shall directly deal with the insurance company for all matters regarding the insurance in his scope.
24.4	BHEL/ customer shall arrange comprehensive insurance policy for total supply & services for main equipment/ system covering transit risks & loss, destruction or damage during handling at site, storage, civil works, erection, testing and commissioning up to trial operation/ completion of unit(s) including theft, sabotage, fire, lightning and other natural calamities.
24.5	Successful bidder shall timely intimate despatches/ discrepancy during contract operation, to the underwriter. The name of the underwriter and Policy No shall be intimated in due course of time.
24.6	The successful bidder will take necessary precautions/ due care to protect the material at project site, while in their custody from any damage/ loss till the same is handed over to BHEL/ customer at project site. For lodging/ processing of insurance claim the successful bidder will submit necessary documents. BHEL reserve the right to recover the loss from the successful bidder in case the damage/ loss is due to negligence/ carelessness on the part of the successful bidder. In case of theft of material under successful bidder's custody, the same shall be reported to police by the successful bidder immediately and copy of FIR and subsequently police investigation report shall be submitted to BHEL/ customer for taking up with insurance. However this will not relieve the successful bidder of their contractual obligation for the materials in his custody.
24.7	In case the damage/ loss/ theft of materials are attributable to negligence/ failure in discharging the duties and obligations of the successful bidder, the expenses incurred for repair/ replacement of such components in excess of the amount realized from the underwriters, limited to Normal Excess (Deductible Franchise) shall be recovered from the successful bidder.
24.8	In case the claim is summarily rejected by the underwriters due to WILFUL NEGLIGENCE of the successful bidder, the entire cost of repair/replacement will be recovered from the successful bidder.
24.9	It will be responsibility of the successful bidder to replenish the items lost/ damaged in time without hampering the schedule of work and without waiting for settlement of insurance claim. Amount received from the underwriters on settlement of insurance claim shall be passed on to the successful bidder as and when available.
24.10	Other conditions of Insurance shall be as per relevant clause of GCC.
<b>25.0</b>	<b>SECURITY DEPOSIT (SD) AND PERFORMANCE BOND (PB)</b>
25.1	Security deposit shall be as per respective clauses of GCC for services contract.

TENDER NO – PSER:SCT:RKL-M1828:17 (TCN-11)		
VOLUME-IF-CML-E, R-01	TECHNICAL CONDITIONS OF CONTRACT (SERVICE)	PAGE 18 OF 36

25.2	Performance bond, in the form of bank guarantee for an amount of 5 % of contract price for scope of services shall be submitted by the successful bidder within 30-days of issue of LOI. The bond shall be kept valid until six months after the expiry of warranty/ guarantee period.
<b>26.0</b>	<b>PAYING AUTHORITY</b>
26.1	All issues related to invoicing, payment shall be addressed to following
26.2	Construction Manager, BHEL site office, 1x250 MW PP-II Expansion, NSPCL, Rourkela, Odisha. Any change of above shall be intimated to the successful bidder accordingly.
<b>27.0</b>	<b>BANKER</b>
	The address of banker for negotiation of documents shall be made available by BHEL site after award of the job.
<b>28.0</b>	<b>BANK CHARGES</b>
	No interest, whatsoever, shall be payable by purchaser on the security deposit, any bank guarantee submitted or any amount due to the seller/vendor.
<b>29.0</b>	<b>COMPLETION PERIOD</b>
29.1	MAIN SERVICE (REFER VOLUME-III)
	The successful bidder shall execute the job in such a manner that entire job gets completed within <b>14 (Fourteen) months</b> from the date of LOI.
29.2	OPERATION & MAINTENANCE (O&M) (REFER VOLUME-IIA)
29.2.1	Bidder shall provide complete operation & maintenance (O&M) service of RAW water Intake system as per complete scope of the tender for 6 (Six) months (Approximately) after trial run, load test/ PG/ demonstration test of the system/ package, as applicable, till handing over of the system/ package to BHEL.
29.2.2	The tenure of O&M period shall commence after trial run and load test/ PG test/ demonstration test till handing over of plant.  In case of delay in completion of load test/ PG test/ demonstration test (s) of the system/ package, as applicable, and handing over of the system/ package to BHEL, by more than 2 months, for reasons not attributable to the successful bidder, the date of commencement of O&M service shall be reckoned from date of readiness for load test/ PG test/ demonstration test(s), as applicable.
29.2.3	Depending on project requirement, the tenure of O&M service may vary (Reduced/ increased) and the same shall be intimated with 1 (One) month notice by BHEL, which shall be binding on the successful bidder.
<b>30.0</b>	<b>CONSTRUCTION/ EXECUTION SCHEDULE</b>
30.1	Upon receipt of order/ LOI from BHEL, successful bidder shall interact with BHEL site for kick-off meeting to discuss & firm up schedule of erection, testing, commissioning of various items so as to complete the entire job within the stipulated completion period, matching with project schedule.
30.2	Based on the discussion of the kick-off meeting or otherwise, a master schedule shall be drawn, which shall be subject to acceptance/ approval of BHEL.
30.3	Based on progress, successful bidder shall progressively submit quantified billing break-up of entire scope of service contract. On acceptance of BHEL, approved billing schedule will be issued by BHEL.
30.4	On every month, the successful bidder shall submit to Construction Manager, BHEL schedule-wise plan vs actual status of erection, testing, commissioning, along with action plan to make-up delay, if any.
30.5	The project schedule might undergo revision/ modification periodically, for which the successful bidder may have to prepare/ modify schedule periodically in consultation with BHEL, so as to match with revised project milestones.
30.6	The successful bidder shall ensure monitoring of these activities at least on fortnight basis or at other frequency as mutually agreed with BHEL.
30.7	Successful bidder shall submit daily work program based on above schedule. Deferment of above schedule is not acceptable. Successful bidder will adhere to schedule and resource planning to be augmented to ensure completion as per schedule.

30.8	Progress reviews on entire activities will be held periodically as per direction of BHEL, at Kolkata/ site/ Noida. These meetings will be used as a forum for discussing all areas where progress needs to be expedited. The successful bidder shall be further responsible for ensuring that suitable steps are taken to meet various targets decided upon such meetings.
<b>31.0</b>	<b>EXTENSION OF TIME FOR COMPLETION</b>
31.1	If the completion of work as detailed in the scope of work gets delayed beyond the contract/ completion period, the successful bidder shall request for an extension of the contract and BHEL at its discretion may extend the contract.
31.2	Based on the reviews jointly signed, the works balance at the end of original contract period less the backlog attributable to the successful bidder shall be quantified, and the number of months of 'Time extension' required for completion of the same shall be jointly worked out. Within this period of 'Time extension', the successful bidder is bound to complete the portion of backlog attributable to the successful bidder. Any further 'Time extension' or 'Time extensions' at the end of the previous extension shall be worked out similarly.
31.3	However if any 'Time extension' is granted to the successful bidder to facilitate continuation of work and completion of contract, due to backlog attributable to the successful bidder alone, then it shall be without prejudice to the rights of BHEL to impose penalty/ LD for the delays attributable to the successful bidder, in addition to any other actions BHEL may wish to take at the risk and cost of successful bidder.
31.4	A joint programme shall be drawn for the balance amount of work to be completed during the period of 'Time Extension', along with matching resources to be deployed by the successful bidder as per specified format. Review of the programme and record of shortfall shall be done.
31.5	During the period of 'Time extension', successful bidder shall maintain their resources as per mutually agreed program
31.6	At the end of total work completion as certified by BHEL engineer, and upon analysis of the total delay, the portion of time extensions attributable to (i) Successful bidder, (ii) Force majeure conditions, and (iii) BHEL, shall be worked out and shall be considered to be exhausted in the same order. The total period of time extensions shall be the sum of (i), (ii) and (iii) above and shall be equal to period between the scheduled date of completion and the actual date of completion of contract. LD shall be imposed/ levied for the portion of time extensions attributable to successful bidder and recoverable from the dues payable to the successful bidder.
<b>32.0</b>	<b>TERMS OF PAYMENT</b>
32.1	The successful bidder shall submit their running bill (RA bill) once in a month, at the end of the month, as per billing break-up of this tender
32.2	Along with RA every bill, the successful bidder shall submit plan (w.r.t. L2 Schedule) vs actual status of erection, testing, commissioning.
32.3	Progressive payment shall be made by BHEL against successful bidder's RA bill, complete & correct in all respects accompanied by BHEL engineer's certified/ measurement sheet, jointly signed; requisite statutory certificates, certified by BHEL; within 60 days of submission of the bill.
32.4	Measurement will be taken as specified in terms & conditions of the contract and certified by the BHEL engineer of actual work.
32.5	Subject to any deduction which BHEL may be authorized to make under the contract, the successful bidder shall on the certification of BHEL engineer at site, be entitled to payment as per billing schedule.
32.6	However no extra payment shall be made in the event of deferment in payment.
32.7	All admissible recovery/ adjustment, etc shall be made from interim payable amount.
<b>33.0</b>	<b>BILLING BREAK-UP</b>
33.1	Successful bidder shall submit detail billing schedule to BHEL for review & approval.
33.2	Progressive payment shall be made as per following billing break-up, in conjunction with terms of payment provision of the tender, operated on approved billing schedule.
33.3	<b>FOR MAIN SERVICE (REFER VOLUME-III)</b>
33.3.1	80 % (Eighty percent) of contract price will be released against on pro-rata erection of item/ material, on submission of protocol, duly signed by BHEL site official(s)/

	customer, as per approved billing schedule.	
33.3.2	10 % (Ten percent) of contract price will be released against commissioning of all items/ materials/ system, on submission of protocol, duly signed by BHEL site official(s)/ customer, as per approved billing schedule.	
33.3.4	5 % (Five percent) of contract price shall be released against trail run of the system/ package.	
33.3.5	5 % (Five percent) of contract price shall be released against - (i) Successful completion of system/ package; (ii) Material reconciliation, liquidation of pending points, etc. and (iii) Handing over of the system/ package to the owner. In case of delay in completion of above activities, for reasons not attributable to the successful bidder, this amount can be paid on submission of BG of equivalent amount, valid initially for 6 months & to be revalidated till completion of PG test/ demonstration test or handing over of the system/ package, whichever is later. However, successful bidder has to fulfil all formalities for final billing/ contract closing, material reconciliation, liquidation of pending points, certification of work completion by site, prior to drawing this payment.	
33.3.5.1	This 5% (Five percent) payment will be released after confirmation of full GST Credit to BHEL. Any Interest if levied thereon, for reasons elaborated in tax & duties clause of the tender and attributable to the bidder, will be recovered from the Final Payment / Retention amount.	
33.4	The tentative break-up for making broad BBU for the scope of work as per sl.no. Sch-4 of Price Schedule is given below for reference. The percentages of billing schedule are only for the purpose of progressive payments and should not be construed as price of individual item and successful bidder shall complete entire scope of the work without any reference to the break up. Further, detailed BBU is to be submitted by the successful bidder for approval from BHEL.	
33.4.1.	<b>Description of activity</b>	<b>Allocated Range (in%)</b>
33.4.1.1	All investigations, survey, analysis as per technical specifications	1-2%
33.4.1.2	Approval of all basic design documents such as data sheets/ drawings, quality plans etc. as per tender specification.	3-5%
33.4.1.3	Intake well	25-30%
33.4.1.4	Intake Water Pump House.	15-20%
33.4.1.5	Approach Bridge.	12-17%
33.4.1.6	Electrical Annexure building/Switch Gear building, Control room, Battery Room, cable trenches and associated civil works.	10-15%
33.4.1.7	Transformer area.	1-3%
33.4.1.8	Slope/reservoir Bank protection.	4-6%
33.4.1.9	Roads, Boundary wall, drain, Water supply, and Sewers.	4-6%
33.4.1.10	Stop log gate & screen with embedded parts etc.	1-3%
33.4.1.11	Misc. balance Work	5-7%
33.4.2	BHEL, however at its sole discretion, may change the allocated percentage range against individual item or may introduce new item at the time of finalization of BBU after award of contract.	
33.5	FOR SUPERVISION OF OPERATION	
33.5.1	95 % on accepted unit rates will be released on completion of supervision and O&M service per month.	
33.5.2	Balance 5 % of contract price will be released along with final bill.	
33.5.2.1	This 5% (Five percent) payment will be released after confirmation of full GST Credit to BHEL. Any Interest if levied thereon, for reasons elaborated in tax & duties clause of the tender and attributable to the bidder, will be recovered from the Final Payment / Retention amount.	
33.6	Applicable GST shall be released to the vendor upon compliance of following:	
33.6.1	Vendor declaring such Invoice in his GSTR-1	
33.6.2	Material Receipt Certificate (MRC)	
33.6.3	Confirmation of payment of GST thereon by vendor on GSTN Portal	
33.6.4	Above is subject to receipt of goods / service and tax invoice thereof along with	

	vendor declaring invoice in his return and paying GST within timeline prescribed for availing ITC by BHEL.
33.7	BHEL site, at discretion, may further split up the above percentages billing break-up and affect payment to suit the site condition, cash flow requirement, according to the progress.
33.8	The billing break-up is drawn for progressive payment and shall not be construed as the value/ price of corresponding item, unless otherwise decided by BHEL.
<b>34.0</b>	<b>MOBILISATION ADVANCE/ INTEREST BEARING RECOVERABLE ADVANCE</b> Not applicable for this tender.
<b>35.0</b>	<b>ESCALATION (PVC)</b>
35.1	Applicable as per relevant provision of GCC (As per column `CIVIL PACKAGES' of the tender), together with following terms & conditions.
35.2	PVC shall be applicable after normal completion period on balance work, in case of any extension, for reasons not attributable to successful bidder.
35.3	Base index (X0) shall be average of indices of various components of tender, starting from latest due date of submission of complete offer (as per NIT & TCN, as applicable) to the original completion period, as specified in tender.
35.4	Overall ceiling of PVC will be limited to 10 % of executed price, excluding supply price, if any. Executed price for this purpose is exclusive of PVC, ORC, additional/ extra works.
35.5	All other terms & conditions of GCC shall remain unchanged.
<b>36.0</b>	<b>OVER RUN COMPENSATION (ORC)/ RATE REVISION</b> Not applicable for this tender.
<b>37.0</b>	<b>TAXES, DUTIES, ETC</b>
37.1	<b>All taxes excluding GST with applicable cess &amp; BOCW Cess (mentioned elsewhere in the Tender)</b> but including, Charges, Royalties, , any State or Central Levy and other Taxes for materials if any obtained for the work and for the execution of the contract shall be borne by the bidder and shall not be payable extra by BHEL.
37.2	Any increase in the above at any stage during execution including extension of the contract, if any, shall have to be borne by the contractor. Quoted/ accepted rates/ price shall be inclusive of all such requirements.
37.3	<b>GST with applicable Cess, legally leviable &amp; payable by the successful bidder as per GST Law, shall be paid extra by BHEL. Hence, Bidder shall not include GST with applicable Cess in their quoted price.</b>
37.4	The successful bidder shall furnish proof of GST registration with GSTN Portal covering the services under this contract. Registration should also bear endorsement for the premises from where the billing shall be done by the successful bidder on BHEL for this project/ work.
37.5	<b>Since GST on output will be paid by BHEL separately as enumerated above, bidder's quoted rates/ price should be after considering the Input Credit under GST law at their end.</b>
37.6	TDS under Income Tax shall be deducted at prevailing rates on gross invoice value from the running bills unless exemption certificate from the appropriate authority/ authorities is furnished.
37.7	TDS under GST (if/ as & when applicable later) shall be deducted at applicable rates on gross invoice value from the running bills. However as on date no TDS under GST is applicable.
37.8	Bidder shall note that the GST Tax Invoice complying with GST Invoice Rules (Section 31 of GST Act & Rules referred there under) wherein the 'Bill To' details shall be as per following. <b>BHEL GSTN – Shall be intimated later.</b> NAME - - do - ADDRESS – - do -
37.9	Bidder to intimate immediately on the day of removal of Goods(in case of any supply of goods) to BHEL along with all relevant details and a scanned copy of Tax Invoice

	<p>through following communication mode for enabling BHEL to meet its GST related compliances</p> <p>Portal Address – Shall be intimated later. And Email Address – Shall be intimated later.</p> <p>In case of delay in submission of the abovementioned documents on the date of dispatch, BHEL may incur penalty /interest for not adhering to Invoicing Rules under GST Law. The same will be liable to be recovered from the successful bidder, if such delay is attributable to the bidder.</p>
37.10	In case of raising any Supplementary Tax Invoice (Debit / Credit Note) Bidder shall issue the same containing all the details as referred to in Section 34 read with Section 31 of GST Act & Rules referred there under.
37.11	Bidder shall Comply with the Time limit prescribed under the GST Law and rules thereof for raising of the tax invoice. If any supply of goods is applicable, Bidder shall also ensure prompt delivery of Goods after dispatch.
37.12	Bidder shall note that in case GST credit is delayed/ denied to BHEL due to delayed / non receipt of goods and /or tax invoice or expiry of the timeline prescribed in GST Law for availing such ITC, or any other reasons attributable to the bidder, GST amount shall be recoverable from the bidder along with interest levied / leviable on BHEL, as the case may be.
37.13	Bidder shall upload the Invoices raised on BHEL in GSTR-1 within the prescribed time as given in the GST Act. Bidder shall note that in case of delay in declaring such invoice in your return and GST credit availed by BHEL is denied or reversed subsequently as per GST Law , GST amount paid by BHEL towards such ITC reversal as per GST law shall be recoverable from the bidder along with interest levied / leviable on BHEL.
37.14	<p><b>Way Bill:</b> Successful Bidder shall arrange way bill / e-waybill for any transfer of goods for the execution of the contract.</p> <p>The Bidder has to make their own arrangement at their cost for completing the formalities, if required, with Issuing Authorities, for bringing materials, plants &amp; machinery at site for execution of the works under this contract, Road Permit/ Way Bill, if required, shall be arranged by the contractor and BHEL will not supply any Road Permit/ Way Bill for this purpose.</p>
37.15	<p>Any new taxes &amp; duties, if imposed subsequent to the due date of offer submission as per NIT &amp; TCN, by statutory authority during contract period (including extensions for which delay is not attributable to the bidder), shall be reimbursed by BHEL on production of relevant supporting document to the satisfaction of BHEL. However, bidder shall obtain prior approval from BHEL before depositing any such new taxes and duties.</p> <p>Benefits and/or abolition of all existing taxes must be passed on to BHEL against new taxes, if any, introduced at a later date.</p>
<b>38.0</b>	<b>LIQUIDATED DAMAGE AND OTHER PENALTIES</b>
38.1	MAIN SERVICE (REFER VOLUME-III)
38.1.1	If the successful bidder fails to complete entire scope within completion period for reasons attributable to them, BHEL shall have the right to recover as liquidated damages (LD) a sum equivalent to 0.5 % of contract price, including taxes, duties, etc., for delay of each week or part thereof.
38.1.2	The liability for delay shall not in any case exceed 5 % (Five percent) of the contract price , including taxes, duties, etc.
38.2	FOR O&M (REFER VOLUME-III)
	The liquidated damage/ compensation for O&M service is applicable for not providing the service properly and BHEL had to do the same for project requirement by incurring expenditures. The amount of liquidated damage/ compensation for such

	case will be limited to the amount of such charges BHEL incur/ pay plus (+) 30 % thereof.
38.3	BHEL shall deduct aforesaid amounts from any money due or which may become due to the successful bidder and/ or recover from the bank guarantees/ security deposit of the successful bidder. To be entitled to impose such compensation/ penalty/ recovery, BHEL will not be required to prove that they have incurred such amount as actual damage.
38.4	BHEL reserve the right to complete the job through other resource on account of and at the risk & cost of successful bidder without notice to successful bidder of the work not so executed, without cancelling the order/ contract in respect of the work not yet due for completion.
38.5	BHEL reserve the right to cancel the order/ contract or a portion thereof for the work not so completed at the risk & cost of the successful bidder and the successful bidder shall be liable to BHEL for any excess costs thereof.
38.6	The successful bidder shall continue with performance of the order/ contract under all circumstances, to the extent not cancelled.
38.7	Where action is taken as per above, the successful bidder shall be liable for any loss, which BHEL may sustain on that account. The successful bidder shall not be entitled to any gain on such action and the manner & the method of such purchase shall be at the discretion of BHEL. It shall not be obligatory on the part of BHEL to serve a notice of such completion, through other resource, on successful bidder.
38.8	Other provision shall be as per the GCC.
<b>39.0</b>	<b>GUARANTEE / WARRANTY, LATENT DEFECT LIABILITY &amp; MAINTENANCE</b>
39.1.1	The bidder shall warrant that the execution is in accordance with contract document and free from defects arising due to deficiencies in engineering and from defects workmanship for a period of 12 (twelve) calendar months commencing immediately upon the satisfactory completion of trial operations and handing over. The equipment shall operate satisfactorily & reliably and the performance and efficiency of the equipment (s) shall not be less than the respective guaranteed values.
39.1.2	The successful bidder shall be liable to repair or replace/ upgrade with specific consent of owner, any defective parts that may develop in the plant of his own manufacture or those his sub suppliers under the conditions provided for by the contract and under proper use and arising solely from faulty design, materials and/ or workmanship. Any defect removal at site by repair/ up-gradation of the installed equipment/ component /material will be permitted by the owner only when such repair/ up-gradation in the meantime, is not detrimental to the commercial use of the plant. All replaced defective parts shall be returned to the successful bidder unless otherwise arranged. No repairs or replacement shall normally be carried out by the engineer when the plant is under the supervision of the successful bidder's supervisory engineers.
39.1.3	The successful bidder's obligations against the above clause shall be limited to repairing or replacing with all incidental charges from site to the successful bidder's work and/or his sub-supplier's works and back to site. In case of defective parts not repairable at site but, essential in the meantime for the commercial operation of the equipment, the successful bidder and the purchaser/ owner shall mutually agree to a program of replacement or renewal which will minimize to the maximum extent interruption in the operation of the equipment.
39.1.4	The acceptance of the equipment by the engineer shall in no way relieve the successful bidder of his obligation under this clause.
39.1.5	In the event of any emergency where, in the judgment of the engineer, delay would cause serious loss or damages, repairs or adjustment may be made by the engineer or a third party chosen by the engineer without advance notice to the successful bidder and the cost of such work shall be paid by the successful bidder. In the event such action is taken by the engineer, the successful bidder will be notified promptly and he shall assist wherever possible in making necessary corrections. This shall not relieve the successful bidder's liability under the terms and conditions of the contract.
39.1.6	If it becomes necessary for the successful bidder to replace or renew any defective portions of the plant, the provision of this clause shall apply to portion of the plant so

	replaced or renewed until the expiration of six months from the date of such replacement or renewal or until the end of the warranty period as specified in clause whichever may be later. If any defects are not remedied within 30 days, the engineer may proceed to do the work at the successful bidder's risk & cost, but without prejudice to any other rights which BHEL may have against the successful bidder in respect of such defects.	
39.1.7	If the replacement or renewals are of such character as may affect the efficiency of the plant, the purchaser/ owner shall have the right to give to the successful bidder within one month of such replacement or renewal, notice in writing that 'acceptance tests on completion' be made, in which case such tests shall be carried out as per approved QAP/ BHEL guidelines.	
39.1.8	The repaired or new parts will be furnished and erected free of cost by the successful bidder. If any repair is carried out on his behalf at the site, the successful bidder shall bear the cost of such repairs.	
39.1.9	The cost of any special or general overhaul rendered necessary during the maintenance period due to defects in the plant or defective work carried out by the successful bidder shall be borne by the successful bidder.	
39.1.10	In respect of goods supplied by sub-successful bidders to the successful bidder where a longer guarantee (more than 12 months) is provided by such sub-successful bidders, the owner shall be entitled to the benefit of such longer guarantee.	
39.2	<b>LATENT DEFECT LIABILITY</b>	
39.2.1	At the end of the warranty/guarantee period, the successful bidder's liability ceases except for the latent defects. The liability under latent defects warranty for the scope of work, including spares, shall be limited to a period of five (5) years from the end of warranty/guarantee period. For the purpose of this clause, the latent defects shall be the defects inherently lying within the material or arising out of design deficiency.	
39.3	Other provision shall be as per the GCC.	
<b>40.0</b>	<b>TOOLS &amp; PLANTS (TO BE PROVIDED BY CONTRACTOR)</b>	
40.1	Tentative list of T&P to be deployed by contractor for successful completion of work is detailed below.	
40.2	It may be noted that the list is not exhaustive and is only for general guidance. The contractor is required to provide all necessary T&P (other than those specified to be provided by BHEL, if any) measuring (calibrated) instruments & handling equipment to maintain work progress for timely completion of total work as per contract. In case of project requirement, some activities may have to pre-pone. In such cases the contractor may have to deploy additional T&P. Quoted rate shall be inclusive of such emerging requirements. However, contractor shall submit deployment plan of all T&P along with tender bid.	
40.3	In the event of any failure on the part of the contractor to deploy T & P to sustain desired work progress, BHEL may at his discretion also terminate the contract on this ground and take out any or whole amount of the contract from the scope of the contractor. In the event of failure of contractor to deploy necessary and sufficient T&P/ IMTEs to maintain work progress, BHEL will be at liberty to arrange the same at the risk & cost of contractor including transportation cost of same from any of BHEL site/ other agency & charges as applicable shall be deducted from contractor's RA bill. Decision of BHEL in this regard will be final & binding on contractor.	
	Following Major T&Ps to be arranged by contractor within the indicated time:	
	<b>Major T&amp;P items</b>	<b>Tentative Mobilizing time from date of start of work</b>
40.4 .1	One no. 75 T Crawler crane	As per site requirement / before start of structural erection
40.4 .2	1 no. crawler cranes 40/45 T capacity crawler/tyre mounted crane	within 50 days
40.4 .3	Portable fire extinguishers as below: Soda acid – 10 sets. Dry chemical powder – 10 sets CO2 – 5 sets. Water & sand bucket (4 buckets in one stand)	Within 30 days

	– 5 sets. Fire hose with nozzle (50 M length) – 4 sets.	
40.4 .4	2 nos. hydra (10/ 12 T cap)	1st – within 25 days from start of work. Balance as per site requirement
40.4 .5	6 nos. MIG machine	As per site requirement
40.4 .6	10 nos. welding rectifier	As per site requirement.
40.4 .7	1 no. trailer – 15T	Within 60 days.
40.4 .8	1 no. torque tightening m/c.	As per site requirement
40.4 .9	Sufficient quantity of steel ladders for approach up to the top of each erected column to be required during erection of columns.	As per site requirement.
40.4 .10.1	1 No. jack hammers/pavement breakers.	As per site requirement
40.4 .10.2	Power winch – 3T - 2 nos for structural erection	Within 150 days
40.4 .11	Power winch – 5T - 1nos for structural erection	Within 150 days
40.4 .12	1 no ultra-sonography testing machine for structural work.	As per site requirement
40.4 .13	2 No. hydraulic excavator / Poclain (one no. with rock breaker attachment)	1 <sup>st</sup> – before start of work 2 <sup>nd</sup> – within 30 days from start of work.
40.4 .14	1 No. JCB / Pay Loader	1 <sup>st</sup> -before start of work
40.4 .15	1 no. Automatic concrete batching plant (Output 30 cum/ hr)	To be commissioned Within 35 days from start of work.
40.4 .16		
40.4 .17	3 nos. transit mixer (4.5/5/6 M3 capacity)	1st 2 no. within 35 days. 1 nos. within 75 days.
40.4 .18	2 nos. concrete pump (20 cum/ hr min capacity)	1 <sup>st</sup> - Within 40 days 2 <sup>nd</sup> – Within 75 days.
40.4 .19	1 no. Concrete cutting power tools (DD2E of HILTI/BOSCH make)	As per site requirement
40.4 .20	1 no. Concrete core Cutting machine for drilling in concrete upto 300 mm dia alongwith diamond bits	As per site requirement.
40.4 .21	2 nos. self priming dewatering pump 10 HP (diesel/ electric)	Within 20 days.
40.4 .22	One no. 10 HP submersible mono-block electric pump (KOS-1040+ of Kirloskar or equivalent),	Within 60 days.
40.4 .23	1 nos. self priming dewatering pump 5 HP (diesel/ electric)	Within 30 days.
40.4 .24	2 nos. curing pump – 1.5 /2 HP (pump for curing at heights)	Within 60 days.
40.4 .25	1 no. dozer.	Within 25 days.
40.4 .26	4 nos. dumper	2 nos. Within 20 days. Balance within 30 days
40.4 .27	2 nos. reinforcement bending machine	Within 30 days.
40.4 .28	1 nos. reinforcement cutting machine	Within 30 days.
40.4 .29	2 nos. power driven earth rammer	Within 60 days.
40.4 .30	1 no. vibromax (earth compacter)	Within 45 days.
40.4 .31	2 nos. Vibro compactor/ plate compactor	Within 120 days
40.4 .32	1 no. compression testing machine (200 T cap)	Within 45 days.
40.4 .33	Civil laboratory equipments as per list attached in ANNEX `A` with temporary building one AC lab size 4.5mtrx6mtr and 1 non AC lab 4.5 mtrx4.5 mtr	Within 55 days.
40.4 .34	2 nos. electric winch with building hoist	Within 120 days.
40.4 .35	1 no total station with adequate arrangement	Within 15 days.

	for Surveyors.	
40.4 .36	2 nos auto level & staff + 2 nos as required	Within 15 days.
40.4 .37	30 nos concrete cube moulds	Within 15 days.
40.4 .38	Adequate no. of small trucks 2T/5T for movement within site	As per requirement.
40.4 .39	TWO nos drinking water tank – 1000 lit.	Within 30 days.
40.4 .40	1 nos truck mounted water tank (minimum 3000 lit) capacity with sprinkler arrangement.	Within 30 days.
40.4 .41	1 No. 125KVA Electric Generator	1 no. within 30 days
40.4 .42	10 Nos. Concrete vibrator with adequate needle (3Nos. diesel driven +7Nos. electric driven)	5 Nos (at least 2nos. diesel driven) within 30 Days. Balance diesel/electric by 60 to 75 days
40.4 .43	4 nos. lighting mast with DG set attachment (8 mtrs. High & above capacity. (These towers shall have 4x1000W metal halide lights)	First 2 no. - Within 30 days Balance 2 no. by 75 days
40.5	<p>T&amp;P shown in the above mentioned list are tentative based on planned progress requirement.</p> <p>Actual Mobilisation schedule, based on front availability, drawings, construction schedule and material availability at site is to be reviewed and mutually agreed with CM, BHEL site periodically from time to time for mobilisation of major T&amp;Ps, and the same have to be adhered to. No change will be permitted without written approval of Construction Manager, BHEL site.</p> <p>Further requirement will be reviewed time to time at site and contractor will provide additional T&amp;P/equipments to ensure completion of entire work within schedule time without any financial implication to BHEL. All other T&amp;Ps shall be provided by the contractor without any extra cost to BHEL. Vendor will give advance intimation &amp; certification regarding capacity etc prior to dispatch of heavy equipments.</p>	
40.6	All T&P and all IMTEs, which are required for successful and timely execution of the work covered within the scope of this tender, shall be arranged and provided by the contractor at his own cost in working condition.	
40.7	In the event of non mobilisation of any T&P by the successful bidder and as a result progress of work suffered, BHEL reserves the right to deduct suitable amount from the dues of the bidder, with assigning reasons thereof at the following rates	
	<b>Major T&amp;P items</b>	<b>Recovery rates</b>
40.7.1	75 T capacity crawler crane for pre-assembly.	Rs. 30000/- per week or part thereof
40.7.2	crawler cranes 40/45 T capacity crawler/tyre mounted crane	Rs. 25000/- per week or part thereof
40.7.3	hydra (10/ 12 T cap)	Rs. 15000/- per week or part thereof
40.7.4	MIG machine	Rs. 3000/- per week or part thereof
40.7.5	welding rectifier	Rs. 1000/- per week or part thereof
40.7.6	trailer – 15T	Rs. 10000/- per week or part thereof
40.7.7	Torque tightening m/c. (2 no. Capacity up to 30 dia HSFG bolt tightening)	Rs. 1000/- per week or part thereof
40.7.8	Jack hammers/pavement breakers.	Rs. 1000/- per week or part thereof
40.7.9	Power winch – 3T	Rs. 2000/- per week or part thereof
40.7.10.1	Power winch – 5T	Rs. 3000/- per week or part thereof
40.7.10.2	hydraulic excavator / Poclairn	Rs. 50000/- per week or part thereof
40.7.11	JCB / Pay Loader	Rs. 50000/- per week or part thereof
40.7.12	Automatic concrete batching plant (Output 30 cum/ hr)	Rs. 40000/- per week or part thereof
40.7.13		
40.7.14	transit mixer (4.5/5/6 M3 capacity), peak period 4 nos. transit mixer	Rs. 7000/- per week or part thereof
40.7.15	concrete pump (20 cum/ hr min capacity & lift 70M)	Rs. 20000/- per week or part thereof

40.7.16	Concrete cutting power tools (DD2E of HILTI/BOSCH make)	Rs. 5000/- per week or part thereof
40.7.17	Concrete core Cutting machine for drilling in concrete upto 75mm dia alongwith diamond bits	Rs. 5000/- per week or part thereof
40.7.18	self priming dewatering pump 10 HP (diesel/ electric)	Rs. 2000/- per week or part thereof
40.7.19	10 HP submersible mono-block electric pump (KOS-1040+ of Kirloskar or equivalent),	Rs. 2000/- per week or part thereof
40.7.20	self priming dewatering pump 5 HP (diesel/ electric)	Rs. 2000/- per week or part thereof
40.7.21	curing pump – 1.5 /2 HP (pump for curing at heights)	Rs. 1000/- per week or part thereof
40.7.22	dozer	Rs. 40000/- per week or part thereof
40.7.23	dumper	Rs. 5000/- per week or part thereof
40.7.24	reinforcement bending machine	Rs. 5000/- per week or part thereof
40.7.25	reinforcement cutting machine	Rs. 5000/- per week or part thereof
40.7.26	power driven earth rammer	Rs. 500/- per week or part thereof
40.7.27	vibromax (earth compacter)	Rs. 40000/- per week or part thereof
40.7.28	Vibro compactor/ plate compactor – drum width 750mm	Rs. 10000/- per week or part thereof
40.7.29	compression testing machine (200 T cap)	Rs. 4000/- per week or part thereof
40.7.30	Civil laboratory equipments as per list attached in ANNEX `A`with temporary building one AC lab size 4.5mtrx6mtr and 1 non AC lab 4.5 mtrx4.5 mtr	Rs. 500/- per week or part thereof
40.7.31	electric winch with building hoist	Rs. 2000/- per week or part thereof
40.7.32	Total station with adequate arrangement for Surveyors.	Rs. 5000/- per week or part thereof
40.7.33	Auto level & staff + 1 nos if required	Rs. 5000/- per week or part thereof
40.7.34	Drinking water tank – 5000 lit.	Rs. 5000/- per week or part thereof
40.7.35	Truck mounted water tank (minimum 5000 lit) capacity with sprinkler arrangement.	Rs. 10000/- per week or part thereof
40.7.36	Concrete vibrator with adequate needle (3 Nos. diesel driven + 6 Nos. electric driven)	Rs. 3000/- per week or part thereof
40.7.37	Lighting mast (8 mtrs. High & above capacity.	Rs. 6000/- per week or part thereof
40.7.38	Any other instrument	As per discretion of the BHEL engineer
40.8	Batching plant to be deployed by the contractor must have digitalized recording system, which shall be calibrated with NABL/NPL traceable weights. The batching plant shall have the facility of obtaining the digitalized output giving details of the various constituents (cement, aggregate, water, admixtures, fly ash etc.) in each batch of concrete being produced.	
<b>41.0</b>	<b>CIVIL LABORATORY</b>	
	Contractor shall establish and maintain civil laboratory with necessary equipment (as per Annexure-A) for conducting relevant tests at site, as required.	
<b>42.0</b>	<b>CONTRACT RATE/ PRICE</b>	
42.1	Bidder shall quote their price as per the format of Volume-III, price schedule (Latest revision) only.	
42.2	While, total price will be considered for evaluation, as per provision of tender, separate order for service part will be placed for (i) Main Service & (ii) O&M as per price component in price schedule.	
<b>43.0</b>	<b>EXCLUSION</b>	
43.1	Erection of Various Electrical and C&I items supplied by BHEL as detailed in Section C3 of technical specifications. However, all items supplied by the bidder will have to be erected by the successful bidder within the quoted rates.	
<b>44.0</b>	<b>OTHER TERMS</b>	
	All other term & conditions of this specification shall be governed by the pertinent	

TENDER NO – PSER:SCT:RKL-M1828:17 (TCN-11)		
VOLUME-IF-CML-E, R-01	TECHNICAL CONDITIONS OF CONTRACT (SERVICE)	PAGE 28 OF 36

	provisions of GCC and other volumes of this tender, as applicable.
--	--

**ANNEXURE- A**  
**LIST OF EQUIPMENTS FOR CIVIL SITE LABORATORY**

<b>CONCRETE TESTING EQUIPMENT</b>				
<b>SL NO.</b>	<b>NAME OF TEST</b>	<b>NAME OF EQUIPMENT</b>	<b>SIZE OF EQUIPMENT</b>	<b>IS REF.</b>
1	Initial & final setting time, Consistency of cement	Vicat Apparatus with desk pot	Standard	IS 5513
2	Shrinkage of cement, Auto Clave Test	Le Chatelier's apparatus Auto Clave Equipment	Standard	IS 5514
3	Abrasion value test	Los Angeles Abrasion testing machine	Standard	IS 2386
4	Aggregate Impact value test	Aggregate Impact value testing machine with blow counter	Standard	IS 9377
5	Aggregate crushing value test	Crushing value apparatus	Standard	IS 2386
6	Flakiness index	Thickness gauge for measuring flakiness index	Standard	IS 2386
7	Elongation Index	Elongation guage	Standard	IS 2386
8	Bulk density, voids and bulking apparatus	Measuring cylinders	3, 5,10 & 15 liters cylinders	
9	Concrete Compressive test	Digital Compressive Testing Machine with 2000 KN capacity.	2000KN capacity	IS 2505
10	Cement mortar cube casting	Mortar Cube mould	70.6 x 70.6 x 70.6 mm, minimum 06 sets desired.	IS 10086
11	Concrete Cube casting	Concrete Cube Mould	150x150x150mm, minimum 20 sets desired considering TG Raft major concreting activity.	IS 10086
12	Workability of concrete	Slump cone	Standard, atleast 04 nos	IS 456
13	Specific gravity of aggregates	Pycnometer	Standard, atleast 02 nos	IS 383
14	Cement mortar cube vibrating	Motorised vibration machine for cement testing	Standard	IS 4031
15	Course aggregate Sieve analysis (Concrete & Road Works)	Sieve set	450mm dia GI Frames Size: 125 mm, 90 mm, 75 mm, 63 mm, 53 mm, 40 mm, 20 mm, 16 mm, 12.5 mm, 10 mm, 4.75 mm, Pan and cover	IS 383
16	Fine aggregate sieve analysis	Sieve set	200 mm dia Brass sieves; Size 4.75 mm, 2.36 mm, 1.18 mm 600 micron, 300 micron, 150 micron, 75 micron, 75 micron, Pan and cover	IS 383
17	Seive Shaker	Motorised Sieve shaker	Mfg. Catalogue	
18	Silt content check	Sand silt content beaker	Standard	
19	Ultrasonic pulse velocity test	UPV apparatus for concrete	Standard	

**Soil Testing Equipment (Levelling & Grading)**

1	Liquid limit test	Liquid limit apparatus	Standard	IS 2720
2	Core Cutter test	core cutter apparatus	Rammer, 6 nos of std core cutter mould, dolly	IS 2720
3	Proctor density test	Std proctor Compaction apparatus	Standard	IS 2720
4	Moisture Content	Rapid moisture meter	Standard, atleast 04 nos	IS 2720

<b>Process Control Accessories</b>				
1	Hot air oven	Temperature range 50° C to 300° C	600x600x600mm (min.size)	
2	Electronic balance	3 nos	600gx0.01g, 10g and 50 kg	
3	Physical balance	5 kg capacity	Weights upto 5 kg	
4	Thermometer	Temperature range 0° C to 150° C	Digital	
5	Poker Thermometer (Concrete Road)	Temperature range 0° C to 50° C & 150° C	02 nos each required	
6	Measuring jars	2 nos set of each size	100ml, 200ml, 500ml & 1000 ml	
7	Gauging trowlers	4 nos	100mm & 200 mm with wooden handle	
8	Spatula	2 nos each size	100mm & 200 mm with long blade wooden handle	
9	Stainless steel scoop	2 nos each	2 kg and 5 kg	
10	Vernier calipers	2 nos each	12" and 6" Sizes	
11	Digital pH meter	01 nos	.01 mm least count	
12	Digital micrometer	01 nos	0.01 mm least count	
13	Digital paint thickness meter for steel	02 nos	500 micron Range	
14	GI tray	02 nos each	600x450x50mm, 450x300x40mm, 300x250x40mm	
15	Electric mortar mixer	01 nos	0.25 CUM capacity	
16	Rebound hammer test	01 nos	Digital Rebound hammer	IS 13311
17	Screw Gauge	02 nos	0.1 mm-10mm, Least count 0.05	
18	Digital paint thickness meter for masanory/concrete painting measurement	02 nos	150 micron range	

**ANNEXURE-B****LIST OF TENTATIVELY APPROVED SUPPLIERS/DESIGNERS**

LIST OF TENTATIVELY APPROVED SUPPLIERS/DESIGNERS IS PROVIDED HEREUNDER. HOWEVER, IN CASE THE BIDDER PROPOSES TO PROCURE ITEMS FROM OTHER SUPPLIERS, SPECIFIC APPROVAL SHALL BE REQUIRED TO BE TAKEN FROM BHEL/NSPCL AS PER APPROVED QP. FURTHER BIDDER MAY NOTE THAT LIST CONSISTS OF ONLY TENTATIVELY APPROVED VENDORS. SPECIFIC APPROVAL MUST BE TAKEN FROM BHEL/NSPCL PRIOR TO EXECUTION AT SITE.

SL. NO.	ITEM	PROPOSED SUB SUPPLIER	PLACE OF MANUFACTURING	REMARKS
1	CONSTRUCTION CHEMICALS - ADMIXTURES, PLASTISIZERS, RETARDERS WATER PROOFING COMPOUNDS GROUTS	SIKA INDIA LTO	-	
		CICO TECHNOLOGIES LTD	-	
		FOSROC CHEMICALS (I) PVT LTD	-	
		BASF	-	
2.	FALSE CEILING- GLASS REINFORCED GYPSUM SYSTEM, MINERAL FIBRE BOARD SYSTEM,PREPAINTE COIL COATED STEEL SYSTEM	SAINT GOBAIN	NEW DELHI	
		HUNTER DOUGLOUS	MUMBAI	
		TIGER STEEL	PUNE/MUMBAI	
		INTERARCH	NOIDA	
		LLOYD INSULATION	-	
		MG INDUSTRIES	FARIDABAD	
		ARM STRONG	NEW DELHI	
3	PAINT AND PAINTING SYSTEM	BERGER	-	
		SHALIMAR PAINTS	-	
		JENSON AND NICHOLSON	-	
		KANSAI NEROLAC	-	
		AKZO NOBEL	-	
		ASIAN PAINTS	-	
4	COLOUR COATED SHEET (FOR COIL)	UNION STEEL	KOREA	
		DONGBU STEEL	KOREA	
		BHUSHAN STEEL AND STRIPS LTD.	RAIGAD	
		ESSAR STEEL LTD	PUNE	
		NATIONAL STEEL AND AGRO	DHAR	
		JSW STEEL COATED PRODUCTS LTD	KAMLESHWAR	Formerly JSW ISPAT Steel Ltd
		BHUSHAN STEEL LTD.	SAHIBABAD	

		JSW LTD	THANE	
		TATA BLUESCOPE STEEL LTD	JAMSHEDPUR	*AL-ZN COIL FOR CLADDING
5	PROFILERS FOR DECKING SHEETS	UNIMET PROFILES LIMITED	DHARUHERA	
		MULTICOLOUR STEEL INDIA LIMITED	GURGAON	
		ISOLLOYD	SOLAN	
		NATIONAL STEEL AND AGRO	DHAR	
		ERA BUILD SYS	RUDRAPUR	
		TATA BLUE SCOPE	PUNE	HINJEWARI WORKS
		TATA BLUE SCOPE	BHIWADI	
		PENNAR INDUSTRIES	HYDERABAD	
		ALFA STEEL BUILDING SOLUTIONS	HOSUR	
6	PROFILERS FOR CLADDING SHEETS	MULTICOLOUR STEEL INDIA LIMITED	GURGAON	
		UNIMET PROFILES LIMITED	DHARUHERA- HARYANA	
		ERA BUILD SYS	RUDRAPUR	
		TATA BLUE SCOPE	PUNE	HINJEWARI WORKS
		TATA BLUE SCOPE	BHIWADI	
		PENNAR INDUSTRIES	HYDERABAD	
		ALFA STEEL BUILDING SOLUTIONS	HOSUR	
		ISOLLOYD	SOLAN	
		NATIONAL STEEL AND AGRO	DHAR	
7	ELECTROFORGED GRATING	INDIANA GRATING	PUNE	
		PREMIER POWER PRODUCTS (CALCUTTA) PVT LTD	HOWRAH	
		GREATWELD	PUNE	
		BHOLA RAM STEELS	PATNA	
		KANADE ANAND UDYOG	THANE	

		PINAX STEEL INDUSTRIES	PATNA	
8	GI PIPES	BIS APPROVED SOURCES HAVING VALID BIS LICENCE	-	
9	PVC WATER STOP	DURON POLYVINYL PVT. LTD	GURGAON	
		KANTA RUBBER	HYDERABAD	
		MARUTI RUBBER	NOIDA	
		JYOTI POLYVINYL	VADODARA	
		DEEP-JYOTI RUBBER PVT LTD	NOIDA	
10	BITUMEN ASPHALT	ALL GOVERNMENT REFINARIES	-	
11	PLASTIC, PVC PIPES	BIS APPROVED SOURCES HAVING VALID BIS LICENCE	-	
12	BITUMEN IMPREGNATED FIBER BOARD JOINT FILLER , BITUMEN SEALING COMPOUND	BIS APPROVED SOURCES HAVING VALID BIS LICENCE	-	
13	ALUMINUM COMPOSITE CLADDING	INDOMAX	ROORKEE	
		ALSTONE	DEHRADUN	
14	CERAMIC / VITRIFIED TILES	KAJARIA	-	
		SOMANY		
		SPARTEK INDIA	-	
		NITCO	-	
		ORIENT BELL	-	
		MARBITO		
		RESTILE	-	
		JOHNSON	.	
15.	ACID / ALKALI RESISTANCE TILES, AR BRICKS, ARCEMENT (POTASSIUM SILICATE BASED CEMENT MORTAR, PHENOLIC BASED RESIN CEMENT) AR BITUMASTIC	CARBORANDUM UNIVERSAL	CHENNAI	
		PELICAN	BHIWADI	
		CAMBRIAN	ALWAR	
		KERATECH	VADODARA	
		CHAMPION CERAMICS	CHAMPA	
		SUNSHINE CERAMICS	CHAMPA	
		MAHAKOSHAL POTTRIES	KATNI	
		PERFECT ACID WARE	JABALPUR	
		BABA BAIDNATH REFRACTORIES	PURULIA	

16.	FIRE PROOF DOORS	NAVAIR INTERNATIONAL LTD.	NEW DELHI	
		SHAKTI MET DOOR	HYDERABAD	
		SUPER STEEL	DELHI	FOR SINGLE LEAF ONLY
		SIGNUM FIRE PROTECTION	NAGPUR	
		RADIANT SAFE DOORS	AHMEDABAD	
17	PARTICLE BOARDS, PLYWOOD, MDF	NOVAPAN	-	
		ECOBOARD	-	
		BHUTAN BOARD	-	
		KITPLY	-	
		CENTURY	-	
		GREEN PLY	-	
		DUROPLY	-	
		MERINO	-	\
18	ALUMINUM SECTIONS	HINDALCO	-	
		INDALCO		
		BALCO (VEDANTA)	-	
		NALCO	-	
		JINDAL	-	
19	HIGH SOLID CONTENT LIQUID APPLIED URETHANE BASED ELASTOMERIC MEMBRANE FOR WATER PROOFING	STP	-	
		IWL INDIA LTD	-	
		LLOYDS	-	
		CICO TECHNOLOGIES LTD		
		MK PETRO	-	
20	SANITARY ITEMS	PARRYWARE	-	
		HINDWARE	-	
		SEABIRD		
		ORIENT		
		HINDUSTAN		
		CERA		
21	CP BRASS TAP AND OTHER SANITARY FITTINGS	GEM	-	
		PARKO	-	
		JAQUAR	-	
		MARC	-	
22	POLYTHENE WATER STORAGE TANKS	BIS APPROVED SOURCES HAVING VALID BIS LICENCE	-	
23	NEOPRENE BELLOW STRAPS	CORI	CHENNAI	
		RESISTOFLEX	NOIDA	
		DWREN	KOLKATA	

24	RCC PIPES	BIS APPROVED SOURCES HAVING VALID BIS LICENCE	-	
25	POLYCARBONATE SHEETS	GE PLASTIC (SABIC)	-	
		BAYER (MAKROLON)	-	
26	ELECTRICALLY OPERATED HOIST (5T/2T)	CONSOLIDATED HOIST	SATARA	
		HERCULES HOIST	RA1GARH	
		GRIP ENGG	FARIDABAD	
		EDDY CRANE	PUNE	
		ARMSHEL	BANGLORE	
		CENTURY CRANE	PALWAL	
		ELECTROTHERAPY	HOWRAH	
		TRACTEL TRIFFER	PALWAL	
		ALFA CRANES	ALWAR	
		REVA HOIST	FARIDABAD	
27	STOP LOG GATES, TRASH RACK AND LIFTING BEAM	GENERAL MECHANICAL WORKS	BARODA	
		TRIVENI	NOIDA	
		MACMET	KOLKATA	
		PRADEEP STRUCTURES	HOWRAH	
		RED FAG	HYDERABAD	
28	PTFE BEARING ELASTOMERIC BEARING	ALL CURRENT MORTH/RDSO APPROVED VENDORS		
29	FABRIC EXPANSION COMPENSATOR	KELD ELLETOFT INDIA LTD	CHENNAI	
		EAGLE BURGMANN KE PRIVATE LTD	CHENNAI	
30	MINERAL WOOL FOR THERMAL INSULATION -	ROCKWOOL INDIA LTD.	HYDERABAD	Subject to. carrying out K-value test at CBRI Roorkee / NSPCL approved lab.
		ROCKWOOL INDUSTRIES	BHILA1	
		LAP INUS	MALANPUR (MP)	
		M1NWOOL	RAJANANDGAON	
		LLOYD INSULATION	BHILAI	
		U.P. TWIGA	BULENDSHAHAR	
31	GEOTEXTILE	GARWARE WALL ROPES Ltd	PUNE	
		TENCATE GEOSYNTHETICS ASIA	MALAYSIA	NON WOVEN

32	GEOMEMBRANE (HDPE LINER)	D P WIRES PVT. LTD	RATLAM	
33	CI PIPES	BIS APPROVED SOURCES HAVING VALID BIS LICENCE		
34	COAL TAR ANTICORROSIVE COATING	RUSTECH	KOLKATA	
		PORWAL INDUSTRIES	RAIPUR	
		MP TAR	BHILAI	
		STP UMITED	JAMSHEDPUR	
35	ELASTOMERIC POLYURETHANE COATING	CIPY	PUNE	
		AMCHEM	NOIDA	
		E. WOOD. (APPLICATOR: PSL HOLDING, INDIA)	UK	
		CICO TECHONOLOGIES LTD	GURGAON	
36	HIGH PERFORMANCE MOISTURE COMPATIBLE CORROSION RESISTANT COATING SYSTEM	CECRI LICENSED SOURCES		
37	MS PIPES (IS:3589, WELDED PIPES)	BIS APPROVED SOURCES HAVING VALID BIS LICENCE		
38	PVC COATED CHAIN LINK FENCING & REINFORCED BARBED TAPE	SAUDAGAR MAC MAMMANLAL PVT LTD		
		MECAFERRI		

**CONTENTS**

<b>CLAUSE NO</b>	<b>DESCRIPTION</b>
1.0	NAME OF JOB
2.0	BROAD SCOPE OF WORK
3.0	SITE VISIT
4.0	PROJECT MANAGEMENT
5.0	SERVICES TO BE RENDERED BY THE SUCCESSFUL BIDDER
6.0	COMMUNICATION
7.0	GENERAL TECHNICAL REQUIREMENTS (CODES AND STANDARDS)
8.0	ENGINEERING SERVICES
9.0	QUALITY PLAN
10.0	QUALITY ASSURANCE PROGRAMME
11.0	GENERAL REQUIREMENTS - QUALITY ASSURANCE
12.0	QUALITY ASSURANCE DOCUMENT
13.0	INSPECTION, TESTING AND INSPECTION CERTIFICATE
14.0	OPERATING MANUAL AND MAINTENANCE INSTRUCTION
15.0	INSURANCE
16.0	MATERIAL DESPATCH CLEARANCE CERIFICATE (MDCC)
17.0	MATERIAL RECEIPT CERTIFICATE (MRC)
18.0	CONSIGNEE AND OTHER DETAILS
19.0	DESPATCH
20.0	BANKER
21.0	BANK CHARGE
22.0	PAYING AUTHORITY
23.0	APPROVED MANUFACTURER/ SUB-VENDOR
24.0	INSPECTION & JOINT VERIFICATION (AT VENDOR'S WORKS)
25.0	INSPECTION & JOINT VERIFICATION (AT SITE)
26.0	SPARE
27.0	SECURITY DEPOSIT
28.0	PERFORMANCE BOND
29.0	TAXES, DUTIES, ETC
30.0	COMPLETION PERIOD
31.0	DELIVERY/ SUPPLY SCHEDULE
32.0	EXTENSION OF TIME FOR COMPLETION
33.0	TERMS OF PAYMENT
34.0	BILLING BREAK-UP
35.0	MOBILISATION ADVANCE/ INTEREST BEARING RECOVERABLE ADVANCE
36.0	ESCALATION (PVC)
37.0	OVER RUN COMPENSATION (ORC)/ RATE REVISION
38.0	LIQUIDATED DAMAGE AND OTHER PENALTIES
39.0	GUARANTEE/WARRANTY, AND LATENT DEFECT LIABILITY
40.0	CONTRACT RATE/ PRICE
41.0	EXCLUSION
42.0	OTHER TERMS
	ANNEXURE-I: LIST OF MANUFACTURERS FOR GRP PIPELINE

TENDER NO – PSER:SCT:RKL-M1828:17 (TCN-11)		
VOLUME-IF-CML-S, R-02	TECHNICAL CONDITIONS OF CONTRACT (SUPPLY)	PAGE 2 OF 14

This volume shall be construed as part of tender document and shall be read along-with other volumes of tender. Unless otherwise specified, in case of any confusion of any clause/ provision of this volume or any conflict/ inconsistency of any clause/ provision of this volume with that of other volumes, the same shall be brought out by the bidder in writing to BHEL for clarification or during pre-bid discussions, if applicable, failing which most stringent interpretation in favour of BHEL shall be adopted and the same shall be binding to the bidder. Unless otherwise specified, all terms & conditions shall be applicable for entire scope and for each part/ package of tender.

CLAUSE NO	DESCRIPTION
<b>1.0</b>	<b>NAME OF JOB</b>
	Total scope broadly covers design, engineering, manufacturing, inspection, testing, painting, supply/ delivery duly packed at project site including freight, in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for <b>Raw water intake system including Intake Well, Pump House and Cross Country GRP Pipeline</b> complete with all accessories, including supply of consumables, erection & commissioning spares, special tools & tackles for maintenance, for 1x250 MW unit at NSPCL, Rourkela, Odisha.
<b>2.0</b>	<b>BROAD SCOPE OF WORK</b>
2.1	The work to be done under this specification comprises of design, engineering, manufacturing, assembly, inspection, testing at manufacturer's/ sub-vendor's works, painting, proper packing, transportation, delivery, handing over at site of equipments as stated above & detailed in the specification & elsewhere in tender documents.
2.2	Splitting up of supply contract into two supply contracts one for Indian supply and other for the foreign supply would not be entertained.
2.3	The scope of work broadly covers as per specification & elsewhere in the document but shall not be limited to the following.
2.3.1	Detail design of all equipments & sub-system and work as per specification.
2.3.2	Preparing the manufacturing quality plan.
2.3.3	Complete manufacturing of all the equipments/sub-system including shop, field testing and assembly as per specification.
2.3.4	Providing special tools & tackles and services necessary for the satisfactory execution of the contract.
2.3.5	Providing requisite sets (both hard & soft copy) of engineering drawings, RTF, data, operation & maintenance manual, as-built drawing, plant handbook, storage, preservation & painting manual, erection manual, etc as specified elsewhere in the tender.
2.3.6	Arranging inspection of equipments and accessories etc at manufacturer's/ sub vendor's premises.
2.3.7	Packing & transportation of goods from manufacturer's works/ sub vendor's works.
2.3.8	Any equipments not specified here but required to make the equipments complete shall be under the scope of the successful bidder.
2.3.9	Providing preventive routine maintenance schedule of the equipment/ sub-system.
2.3.10	Transportation of materials on FOR destination/ site basis and door delivery of materials at site.
2.3.11	Preparing schedules and furnishing progress report in requisite mode & number.
2.4	Drawings/ documents submitted along with tender are for guidance purpose only and no claim/ compensation, whatsoever, shall be entertained by BHEL on this account.
2.5	All other points shall be as per the terms & conditions and specification along with aforesaid references together with amendments incorporated thereto.
<b>3.0</b>	<b>SITE VISIT</b>
	Successful bidder should visit site and acquire full knowledge & information about site conditions prevailing at site and in & around the plant premises together with all the statutory, obligatory, mandatory requirements of various authorities before submission of the offer.
<b>4.0</b>	<b>PROJECT MANAGEMENT</b>
	To meet the need of project management, successful bidder shall provide the following services within quoted/ accepted prices.
4.1	<b>PLANNING &amp; MONITORING</b>
4.1.1	The successful bidder shall prepare L1 schedule/ network of engineering, manufacturing, testing, and procurement of sub-vendor items, as per completion schedule given in this document. This network must conform to the overall project schedule.
4.1.2	Based on L1 network the successful bidder will prepare L2 network which will indicate exhaustive list of activities of engineering, procurement of raw materials, manufacturing,

	testing, procurement of sub-vendor items, and dispatch as per completion schedule given in this document. This network must include all milestone and key activities for each subsystems/ components in the areas of engineering (wherever applicable), procurement, manufacture (wherever applicable), dispatch, erection/ commissioning.
4.1.3	Based on L2 network the successful bidder will develop L3 network, which will indicate micro details of each activity of L2 network and also show customer/ BHEL hold points, responsibility of the customers/ BHEL and successful bidder.
4.1.4	Above schedules are to be preferably made in Microsoft Project, so that the same is compatible with BHEL's project management software.
4.1.5	Above schedules/ networks would be submitted to BHEL sequentially by the successful bidder within 15 days from date of LOI and finalized within a month.
4.2	<b>PROGRESS REPORTING</b>
4.2.1	The successful bidder shall prepare and submit to BHEL monthly progress report indicating progress on key activities, management summary for critical activities, list of actions requiring attention of BHEL in CD (compatible to BHEL software) and also in requisite number of hard copies. The input & output data for all such schedule shall be furnished to BHEL in a manner compatible with BHEL software available at site. A copy of progress report must be submitted to Construction Manager/ BHEL/ site and Project Manager/ BHEL/ Kolkata latest by 7 <sup>th</sup> of every month covering the detailed progress achieved in the previous month.
4.2.2	The progress report shall indicate the progress achieved against planned with reasons indicating delays, if any, and shall give the remedial actions which the successful bidder intends to take to make good the slippage or lost time, so that further works again proceed as per the original program and the slippage's do not accumulate and effect the overall program.
4.2.3	Weekly progress review meetings will be held at site during which actual progress during the week vis-à-vis scheduled program shall be discussed or actions to be taken for achieving target. The program of subsequent week shall also be presented by successful bidder for discussions. The successful bidder shall constantly update/revise his work program to meet the overall requirement.
4.2.4	Periodic progress reviews on the entire activities of execution in respect of supply and works in scope of bidder will be held once in a month at Kolkata/site. These meetings will be attended by reasonably higher officials of the successful bidder and will be used as a forum for discussing all areas where progress needs to be speeded up. The successful bidder shall be further responsible for ensuring that suitable steps are taken to meet various targets decided upon such meetings.
4.2.5	Still colour photography (matt paper, post card size, max 10 nos per month for the entire contract execution period) depicting progress of the work, damage to the machine parts, if any, as directed by BHEL site engineer is to be arranged by the successful bidder at his own cost.
4.2.6	Successful bidder have to provide electronic/ computerized storing & re-production/ printing/ plotting of various data, log sheets, protocols, measurements etc. These may be stored in virus free CD & handed over to BHEL as per requirement.
4.2.7	Other provisions of Volume-IA of this tender would be applicable.
<b>5.0</b>	<b>SERVICES TO BE RENDERED BY THE SUCCESSFUL BIDDER</b>
5.1	Services for complete engineering, coordination and project management as detailed elsewhere in this tender.
5.2	Services for shop test, quality assurance, as detailed elsewhere in this tender.
5.3	Supply of main equipment along with other items as per specification maintaining sequential dispatch.
5.4	Supply of first fill of lubricants for all equipment including second fill/ replenishment as necessary after commissioning till handing over of the plant/ equipment
5.5	Furnishing of all document, drawing, design basis, reports, instruction manuals, etc including "As Built Drawing".
5.6	Furnishing preservation schedule with all details of preservation method and preservatives required storing.
5.7	<b>DOCUMENTS</b>
5.7.1	The successful bidder shall furnish 15 (fifteen) sets of approved drawing & documents 6 months prior to commissioning.
5.7.2	The successful bidder shall furnish 15 (fifteen) sets of `Operation & maintenance (O&M) manuals' 3 months prior to commissioning.
5.7.3	The successful bidder shall furnish 15 (fifteen) sets of `Plant handbook' covering design, performance data, P&IDs, SLDs, flow charts, sequence, protection & interlock scheme, alarm & trip valves, performance curves, GA & layout drawings, important Do's and Dont's"

TENDER NO – PSER:SCT:RKL-M1828:17 (TCN-11)		
VOLUME-IF-CML-S, R-02	TECHNICAL CONDITIONS OF CONTRACT (SUPPLY)	PAGE 4 OF 14

	etc. 3 months prior to commissioning.
5.7.4	The successful bidder shall furnish 15 (fifteen) sets of as-built drawing along with 4 copies of CD ROM.
5.7.5	The successful bidder shall furnish 15 (fifteen) sets of `Storage, preservation & painting manual`.
<b>6.0</b>	<b>COMMUNICATION</b> The successful bidder shall be responsible for arranging all communication facilities at office. The successful bidder has to establish independent internet/ e-mail facilities with mobile connection for all key site personnel and same shall be integrated with BHEL's voice/ data network & database systems at site. The successful bidder's office must have facilities of communications like Fax, E-mail, and telephone with STD facility etc.
<b>7.0</b>	<b>GENERAL TECHNICAL REQUIREMENTS (CODES AND STANDARDS)</b>
7.1	Except where otherwise specified, the plant/equipment shall comply with the appropriate Indian Standard or an agreed internationally accepted Standard Specification as mentioned elsewhere in contract specifications, each incorporating the latest revisions at the time of tendering. Where no internationally accepted standard is applicable, the Bidder shall give all particulars and details as necessary; to enable BHEL to identify all of the plant/equipment in the same detail as would be possible had there been a Standard Specification.
7.2	Where the Bidder proposes alternative codes or standards he shall include in his tender one copy (in English) of each Standard Specification to which materials offered shall comply. In such case, the adopted alternative standard shall be equivalent or superior to the standards mentioned in the specification.
7.3	In the event of any conflict between the codes & standards referred above, and requirements of this specification, the requirements which are more stringent shall govern.
7.4	Wherever specified or required the plant/equipment shall conform to various statutory regulations, such as Indian Indian Electricity Rules, Indian Explosive Act, Factories Act etc wherever required, obtaining approval for plant/ equipment supplied under the specification from statutory authorities shall be the responsibility of the successful bidder.
<b>8.0</b>	<b>ENGINEERING SERVICES</b> As part of the overall project management activity, the successful bidder shall be responsible for proper engineering and coordination activities during various phases of execution of the contract. The successful bidder shall identify one Engineering Manager with whom BHEL will interact on all matters on coordination between BHEL and the contactors. The Engineering Manager shall be the single point contact person on behalf of the successful bidder and shall be responsible for all engineering co ordination.
<b>9.0</b>	<b>QUALITY PLAN</b> The bidder shall furnish the quality assurance plan which would be approved by BHEL/ owner.
<b>10.0</b>	<b>QUALITY ASSURANCE PROGRAMME</b> To ensure that the equipment & services under the scope of the contract whether manufactured/ performed at successful bidder's works or at his successful bidder's premises or at any other place of work are in accordance with the specifications the successful bidder shall adopt suitable quality assurance programme to control activities as necessary. Such programme shall be outlined by the successful bidder and shall be finally accepted by BHEL/ owner/ authorised representative. A quality assurance programme of the successful bidder shall generally cover the following.
10.1	The organization structure and qualification data of key personnel for the management and implementation of the proposed quality assurance programme.
10.2	System for site erection control including process controls and fabrication and assembly controls.
10.3	The procedure for purchase of materials, parts, components and selection of sub-successful bidder's service including successful bidder analysis, source inspection, incoming raw material inspection, verification of materials purchased, etc.
10.4	System for shop manufacturing and site erection control including process control, fabrication and assembly controls.
10.5	Control of non-conforming items and system for corrective actions.
10.6	Inspection and test procedure for all site related works.
10.7	Control of calibration and testing of measuring and testing equipment.
10.8	System for quality audit.
10.9	System for indication and appraisal of inspection status.
10.10	System for authorizing release of manufactured product to BHEL.
10.11	System for handling storage and delivery.
10.12	System for maintenance of records.
10.13	Furnishing of Quality Plan for manufacturing and Field activities detailing out the specific

	quality control procedures adopted for controlling the quality characteristics relevant to each item of equipment/ component.
<b>11.0</b>	<b>GENERAL REQUIREMENTS - QUALITY ASSURANCE</b>
11.1	All materials, components and equipment covered under this specification shall be procured, manufactured, and tested at all the stages, as per a comprehensive Quality Assurance Program. An indicative program of inspection/tests to be carried out by the successful bidder for some of the major items is given in the respective technical specification. This is however not intended to form a comprehensive program as it is the responsibility of the successful bidder to draw up and implement such program duly approved by BHEL. The detailed quality plan for manufacturing should be drawn up by the bidder and will be submitted to BHEL for approval.
11.2	Manufacturing Quality Plans will detail out all the equipment & components, various tests/ inspection to be carried out as per requirement of specification & standards mentioned therein and the quality practices & procedures, etc to be followed by the successful bidder's quality control organization during various stages of materials procurement, manufacturing, assembly and final testing/ performance testing.
11.3	The bidder shall furnish copies of reference documents/ plant standards/ acceptance norms/ tests and inspection procedures etc as referred in Quality Plans along with Quality Plan. These Quality Plans and reference documents/ standards etc will be subject to BHEL/ owner's approval without which manufacturing will not proceed. These approved documents will form part of the contract. In these approved Quality Plans, BHEL/ authorized representative shall identify customer hold points, test/ checks which shall be carried out in presence of BHEL/ owner's representative and beyond which work will not proceed without consent of BHEL/ owner. All deviations to the specifications, approved Quality Plan and Applicable standards must be documented and referred to BHEL for approval & disposition.
11.4	Quality audit/ approval of the results of tests and inspection will not prejudice the right of BHEL to reject equipment not giving the desired performance after erection and shall not in no way limit the liabilities and responsibilities of the Successful bidder in earning satisfactory performance of equipment as per specification.
11.5	Repair/ rectification procedures to be adopted to make any job acceptable shall be subject to the approval of BHEL/ owner.
<b>12.0</b>	<b>QUALITY ASSURANCE DOCUMENT</b>
12.1	The successful bidder shall be required to submit the following Quality Assurance Documents within 2 weeks after dispatch of the equipment.
12.1.1	Test report of components.
12.1.2	The inspection plan with verification, inspection plan check points, verification sketches, if used and methods used to verify that the inspection and testing points in the inspection plan were performed satisfactorily.
12.1.3	Non destructive examination results/ reports including radiography interpretation reports.
12.1.4	Welder identification list listing welder's and welding operator's qualification procedures and welding identification symbols.
12.1.5	Sketches and drawings used for indicating methods of traceability of the radiographs to the location of the equipment.
12.1.6	Stress relief time temperature charts.
12.1.7	Factory test results for testing required as per applicable codes and standards referred to in the specification.
12.1.8	Inspection Report duly signed by QA Personnel of BHEL and successful bidder for the agreed inspection hold points. During course of inspection the following will also be recorded.
12.1.8.1	When some important work repair work is involved to make the job acceptable.
12.1.8.2	The repair work remain part of the accepted product quality.
12.1.8.3	Letter of conformity certifying that that requirement is in compliance with finalised specification requirements.
<b>13.0</b>	<b>INSPECTION, TESTING AND INSPECTION CERTIFICATE</b>
13.1	The Engineer, his duly authorised representative and/ or an outside inspection agency acting on behalf of BHEL/ owner shall have access at all reasonable times to inspect and examine the materials and workmanship of the works during its manufacture and if part of the works is being manufactured or assembled on other premises or works, the successful bidder shall obtain for the Engineer and for his duly authorised representative permission to inspect as if the works were manufactured or assembled on successful bidder's own premises or works. Necessary arrangement for carrying out inspection including supply of labour, IMTEs, area illumination and scaffolding, if required will be successful bidder's responsibility and same has to be carried out within the quoted price.
13.2	To facilitate advance planning of inspection in addition to giving inspection notice the

	successful bidder shall furnish quarterly inspection program indicating schedule dates of inspection at customer hold point and final inspection stages. Updated quarterly inspection plans will be made for each 3 consecutive months and shall be furnished before beginning of each calendar month.
13.3	Before any plant/equipment leaves the place of manufacture BHEL shall be given the option of witnessing inspections inspections and tests for compliance with the specifications and related standards. The successful bidder shall give the engineer/ Inspector 15 days written notice of any material being ready for testing. Such test shall be to the successful bidder's account except for the expenses of the Inspector .The Engineer/ Inspector, unless the inspection is waived will attend such tests within 15 days of the date on which the equipment is notified as being ready for test/ inspection failing which the successful bidder may proceed with test which shall be deemed to have been made in the Inspector's presence and he shall forthwith forward to the Inspector duly certified copies of test reports.
13.4	The Engineer or Inspector shall within 15 days from the date of inspection as defined herein give notice to the successful bidder of any objection wrt drawing/ equipment/ workmanship which in his opinion not in accordance with the specification/ contract. The successful bidder shall either make modification as may be necessary to meet the said objection or explain to the engineer/ inspector giving reasons that no modifications are necessary to comply with the contract.
13.5	When the factory tests have been completed at the successful bidder's or successful bidder's works, the engineer or Inspector shall issue a certificate to this effect within reasonable time after completion of tests but if the tests are not witnessed by the engineer or Inspector the certificate shall be issued within 15 days of the receipt of successful bidder's test certificate by the engineer Inspector. The completion of these tests or the issue of the certificates shall not bind BHEL to accept the equipment should it on further tests after erection be found not to comply with the contract.
13.6	In all cases where the successful bidder provides the tests at the premises of the successful bidder or any sub-vendor, the successful bidder except where otherwise specified shall provide free of charge such items as labour, materials, electricity, fuel, water, stores, apparatus and instruments as may be reasonably demanded by the Engineer/ Inspector to carry out effectively such tests on the equipment in accordance with the contract and shall give facilities to the Engineer/Inspector to accomplish testing.
<b>14.0</b>	<b>OPERATING MANUAL AND MAINTENANCE INSTRUCTION</b>
14.1	The successful bidder shall provide at least 6 months before the time of commissioning, all necessary operating & maintenance (O&M) manual. The O&M manual shall be submitted in the form of one reproducible original and 15 copies.
14.2	The information which shall be contained in loose stiff backed covers, shall include following in addition to whatever has been specified in Volume-II of this tender.
14.2.1	A complete inventory of all main items of plant/equipment with identification details.
14.2.2	A complete set of all drawings, schematics, data sheets, schedules etc.
14.2.3	Service Manuals for all plant and equipment giving full descriptions of the main items and auxiliary items.
14.2.4	Schedule of recommendations for routine maintenance of all equipment inspection point, information on detection, cause and rectification of troubles & faults.
14.2.5	A lubrication schedule with all necessary drawings.
14.2.6	Manufacturer's literature for all the self manufactured and bought out items.
14.3	Acceptance of O&M manual is subject to approval of BHEL.
<b>15.0</b>	<b>INSURANCE</b>
15.1	It is the entire responsibility of the successful bidder to insure their workmen against accident and injury while at work as required by the relevant rules and to pay compensation, if any, to their workmen as per workmen's compensation act. The successful bidder shall also insure their staff against accident/ injury.
15.2	The successful bidder shall take insurance cover for all materials, tools & plants, etc., required to be provided & deployed for the job.
15.3	These insurance covers have to be taken prior to start of work and they shall make available the policy to Construction Manager, BHEL for necessary verification before start of work. However, irrespective of such verification/ acceptance, sole responsibility to maintain adequate insurance cover at all times during the period of contract shall lie with the successful bidder. Regarding aforesaid insurance cover, the successful bidder shall directly deal with the insurance company for all matters regarding the insurance in his scope.
15.4	BHEL/ customer shall arrange comprehensive insurance policy for total supply & services for main equipment/ system covering transit risks & loss, destruction or damage during handling at site, storage, civil works, erection, testing and commissioning up to trial operation/ completion of unit(s) including theft, sabotage, fire, lightning and other natural

	calamities.	
15.5	Successful bidder shall timely intimate dispatches/ discrepancy during contract operation, to the underwriter. The name of the underwriter and Policy No shall be intimated in due course of time.	
15.6	The successful bidder will take necessary precautions/ due care to protect the material at project site, while in their custody from any damage/ loss till the same is handed over to BHEL/ customer at project site. For lodging/ processing of insurance claim the successful bidder will submit necessary documents. BHEL reserve the right to recover the loss from the successful bidder in case the damage/ loss is due to negligence/ carelessness on the part of the successful bidder. In case of theft of material under successful bidder's custody, the same shall be reported to police by the successful bidder immediately and copy of FIR and subsequently police investigation report shall be submitted to BHEL/ customer for taking up with insurance. However this will not relieve the successful bidder of their contractual obligation for the materials in his custody.	
15.7	In case the damage/ loss/ theft of materials are attributable to negligence/ failure in discharging the duties and obligations of the successful bidder, the expenses incurred for repair/ replacement of such components in excess of the amount realized from the underwriters, limited to Normal Excess (Deductible Franchise) shall be recovered from the successful bidder.	
15.8	In case the claim is summarily rejected by the underwriters due to WILFUL NEGLIGENCE of the successful bidder, the entire cost of repair/replacement will be recovered from the successful bidder.	
15.9	It will be responsibility of the successful bidder to replenish the items lost/ damaged in time without hampering the schedule of work and without waiting for settlement of insurance claim. Amount received from the underwriters on settlement of insurance claim shall be passed on to the successful bidder as and when available.	
15.10	Other conditions of Insurance shall be as per relevant clause of GCC.	
<b>16.0</b>	<b>MATERIAL DESPATCH CLEARANCE CERIFICATE (MDCC)</b>	
16.1	MDCC shall be issued by BHEL/ owner or their authorized representative prior to dispatch. In case the tests are not witnessed by BHEL/ owner's representative, the test certificates shall be submitted to owner through BHEL and MDCC will be issued thereafter.	
16.2	Copy of MDCC and other dispatch document shall accompany with every dispatch, failing which the consignment shall not be allowed to enter the project premises.	
<b>17.0</b>	<b>MATERIAL RECEIPT CERTIFICATE (MRC)</b>	
	MRC shall be issued by BHEL/ owner or their authorized representative after the material is received at site in good condition.	
<b>18.0</b>	<b>CONSIGNEE AND OTHER DETAILS</b>	
18.1	Consignee for material shall be as per tender.	
18.2	OTHER DETAILS OF BHEL	
18.2.1	VAT RC NO	19200936019.
18.2.2	CST RC NO	19200936213.
18.3	OTHER DETAILS OF CUSTOMER	
18.3.1	VAT RC NO	21762000157
18.3.2	CST RC NO	21762000157
18.3.3	TRADE NAME	NSPCL.
18.4	Any change on above details will be intimated at appropriate juncture.	
<b>19.0</b>	<b>DESPATCH</b>	
19.1	All materials/ plants/ equipments shall be transported by road including ODC consignment. Dispatch shall only be made after inspection and issue of MDCC by BHEL/ owner. Advance information by fax/ courier of dispatch details shall be sent to Construction Manager, BHEL.	
19.2	No consignment shall be dispatched on SELF basis. Material shall be despatched prepaid, door delivery basis, else ensure the clearance and collection of goods from lorry go down and arrangement to transport the same to Site store shall be in the scope of successful bidder.	
19.3	Each package should carry the packing slip/ details of contents and should be put inside a metal enclosure, properly fixed to the packing from outside. The packing shall be such as to ensure prevention of damage, corrosion, pilferage, deterioration, loss in transit or storage and road-worthy.	
19.4	The title of the ownership of goods to be supplied shall pass on to the owner on dispatch ex works/ FOR destination. However till the scope is completed in all respect and the plant/ equipment is taken over by the owner the goods shall remain with the custody of the bidder.	
<b>20.0</b>	<b>BANKER</b>	
	The information shall be provided by BHEL on a later date.	

VOLUME-IF-CML-S, R-02	TECHNICAL CONDITIONS OF CONTRACT (SUPPLY)	PAGE 8 OF 14
--------------------------	--	--------------

<b>21.0</b>	<b>BANK CHARGE</b> No interest, whatsoever, shall be payable by purchaser on the security deposit, any bank guarantee submitted or any amount due to the seller/successful bidder.
<b>22.0</b>	<b>PAYING AUTHORITY</b> All issues related to invoicing, payment shall be addressed to following  Construction Manager, BHEL site office, 1x250 MW units at PP-II EXPANSION NSPCL, Rourkela, Odisha.  Any change of above shall be intimated to the successful bidder accordingly.
<b>23.0</b>	<b>APPROVED MANUFACTURER/ SUB-VENDOR</b> For other bought out items, bidder have to adhere to the list of sub-vendors, indicated elsewhere in the technical specification, Volume-II/ approved sub-vendor.
<b>24.0</b>	<b>INSPECTION &amp; JOINT VERIFICATION (AT SUCCESSFUL BIDDER'S WORKS)</b>
24.1	Prior to dispatch, the materials would be offered by the successful bidder for joint inspection at the successful bidder's works as detailed in this tender specification for which the successful bidder would serve the advance notice of 15 days for inspection call to BHEL.
24.2	For further information, successful bidder shall visit web site <a href="http://cqir.bhel.in">http://cqir.bhel.in</a> to login & lodge inspection related calls.
<b>25.0</b>	<b>INSPECTION &amp; JOINT VERIFICATION (AT SITE)</b> The successful bidder shall be intimated within 7 days from the date of receipt of each consignment at site to depute their representative for joint inspection and verification of the equipment/ materials received at site. The successful bidder shall depute their representative within 7 days from receipt of such intimation failing which BHEL shall proceed with the inspection and verification of equipment/materials and BHEL's decision in this regard shall be final and binding to the successful bidder.
<b>26.0</b>	<b>SPARE</b>
26.1	The scope of supply of any spares shall be governed by scope referred in price schedule, Volume-III (Latest revision).
26.2	However, as general guideline, following points shall be governing.
26.2.1	The purchaser may place orders for supply of spares on the successful bidder separately on receipt of detailed quotation categorizing the spares as (1) fast moving, (2) medium moving and (3) slow moving spare parts. The unit prices of such individual parts shall be valid till completion of guarantee period.
26.2.2	The successful bidder shall give warranty that before going out of production of the spare-parts, he will give advance notice to purchaser/ owner so that purchaser/ owner order his requirement of spares in one lot if he so desires. The successful bidder shall further give guarantee that if he goes out of production of spare parts, then he will make available blue prints/ drawings of spare parts and specifications of materials at no cost to the purchaser/ owner, if required, by purchaser/ owner to enable him to fabricate or procure spare parts from other sources.
26.2.3	Commissioning/ start up spares which are required at any time during the equipment installation till commercial operation of the unit are included in the contract & shall be handed over by the supplier to the purchaser.
26.2.4	Each sub-supplier for bought out items shall provide a full spare parts package showing information for each part, component, assembly and consumable item for each parent equipment item. The package shall also include detailed drawings together with complete spare parts lists giving sizes, materials rating etc.
26.2.5	Spare parts data package – each parent equipment item shall be listed by name, service, sub-suppliers sales order number, equipment plant tag no, manufacturer, model, size, serial no and successful bidders purchase order no. A full spare parts data package shall be submitted for each parent equipment item and shall clearly state which parent equipment it supports. Four hard as well as two soft copies of the complete spare parts data package for successful bidders manufactured items/ plant/ equipment as well as sub-suppliers bought out items shall be furnished to the purchaser at least 3 months before the commissioning of the unit.
<b>27.0</b>	<b>SECURITY DEPOSIT</b> Security deposit for this part of specification shall be governed by the provision of GCC, Volume-IA.
<b>28.0</b>	<b>PERFORMANCE BOND</b> Performance bond for this part of specification shall be governed by the provision of GCC,



29.14	<p><b>Way Bill:</b> Successful Bidder shall arrange way bill / e-waybill for any transfer of goods for the execution of the contract.</p> <p>The Bidder has to make their own arrangement at their cost for completing the formalities, if required, with Issuing Authorities, for bringing materials, plants &amp; machinery at site for execution of the works under this contract, Road Permit/ Way Bill, if required, shall be arranged by the contractor and BHEL will not supply any Road Permit/ Way Bill for this purpose.</p>
29.15	<p>Any new taxes &amp; duties, if imposed subsequent to the due date of offer submission as per NIT &amp; TCN, by statutory authority during contract period (including extensions for which delay is not attributable to the bidder), shall be reimbursed by BHEL on production of relevant supporting document to the satisfaction of BHEL. However, bidder shall obtain prior approval from BHEL before depositing any such new taxes and duties.</p> <p>Benefits and/or abolition of all existing taxes must be passed on to BHEL against new taxes, if any, introduced at a later date.</p>
<b>30.0</b>	<b>COMPLETION PERIOD</b>
	The successful bidder shall execute the job in such a manner that entire job gets completed within <b>10 (Ten) months</b> from the date of LOI.
<b>31.0</b>	<b>DELIVERY/ SUPPLY SCHEDULE</b>
31.1	Upon receipt of order/ LOI from BHEL, successful bidder shall interact with BHEL/ PEM for kick-off meeting to discuss & firm up schedule of design/ engineering, manufacturing/ procurement, supply/ delivery of various items so as to complete the entire job within the stipulated completion period, matching with project schedule.
31.2	Based on the discussion of kick-off meeting or otherwise, master drawing/ document list (MDL) shall be drawn, which shall be subject to acceptance/ approval of BHEL.
31.3	Based on progress of design/ engineering, successful bidder shall progressively submit quantified billing break-up of entire scope. On acceptance of BHEL, approved billing schedule will be issued by BHEL.
31.4	Unless otherwise decided, broad schedule of supply for intermediate milestones/ activities shall be decided in kick-off meeting. Bidder shall note that departure from each milestone attracts penalty as per terms of tender.
31.5	On every month, the successful bidder shall submit to Construction Manager, BHEL MDL-wise plan vs actual status of design/ engineering, billing schedule-wise plan vs actual status of design/ engineering, manufacturing/ procurement, supply/ delivery of items, along with action plan to make-up delay, if any.
31.6	The project schedule might undergo revision/ modification periodically, for which the successful bidder may have to prepare/ modify schedule periodically in consultation with BHEL, so as to match with revised project milestones.
31.7	Deferment of above schedule is not acceptable. Successful bidder will adhere to schedule and augment resource to ensure completion as per schedule.
31.8	Progress reviews on entire activities will be held periodically as per direction of BHEL, at Kolkata/ site/ Noida. These meetings will be used as a forum for discussing all areas where progress needs to be expedited. The successful bidder shall be further responsible for ensuring that suitable steps are taken to meet various targets decided upon such meetings.
<b>32.0</b>	<b>EXTENSION OF TIME FOR COMPLETION</b>
32.1	If the completion of work as detailed in the scope of work gets delayed beyond the contract/ completion period, the successful bidder shall request for an extension of the contract and BHEL at its discretion may extend the contract.
32.2	Based on the reviews jointly signed, the scope balance at the end of original contract period less the backlog attributable to the successful bidder shall be quantified, and the number of months of 'Time extension' required for completion of the same shall be jointly worked out. Within this period of 'Time extension', the successful bidder is bound to complete the portion of backlog attributable to the successful bidder. Any further 'Time extension' or 'Time extensions' at the end of the previous extension shall be worked out similarly.
32.3	However if any 'Time extension' is granted to the successful bidder to facilitate continuation of work and completion of contract, due to backlog attributable to the successful bidder alone, then it shall be without prejudice to the rights of BHEL to impose penalty/ LD for the delays attributable to the successful bidder, in addition to any other actions BHEL may wish to take at the risk and cost of successful bidder.
32.4	A joint programme shall be drawn for the balance amount of work to be completed during the period of 'Time Extension'. Review of the programme and record of shortfall shall be done.
32.5	At the end of total work completion as certified by BHEL engineer, and upon analysis of the

VOLUME-IF-CML-S, R-02	TECHNICAL CONDITIONS OF CONTRACT (SUPPLY)	PAGE 11 OF 14
--------------------------	--	---------------

	total delay, the portion of time extensions attributable to (i) Successful bidder, (ii) Force majeure conditions, and (iii) BHEL, shall be worked out and shall be considered to be exhausted in the same order. The total period of time extensions shall be the sum of (i), (ii) and (iii) above and shall be equal to period between the scheduled date of completion and the actual date of completion of contract. LD shall be imposed/ levied for the portion of time extensions attributable to successful bidder and recoverable from the dues payable to the successful bidder.
<b>33.0</b>	<b>TERMS OF PAYMENT</b>
33.1	The successful bidder shall submit their running bill (RA bill) once in a month, at the end of the month, <b>as per approved billing schedule.</b>
33.2	Along with every RA bill, the successful bidder shall submit item-wise plan (w.r.t. L2 Schedule) vs actual status of supply, as applicable.
33.3	Progressive payment shall be made by BHEL against successful bidder's RA bill, complete & correct in all respects accompanied by BHEL engineer's certified/ measurement sheet, jointly signed; requisite statutory certificates, certified by BHEL; within 60 days of submission of the bill.
33.4	Measurement will be taken as specified in terms & conditions of the contract and certified by the BHEL engineer of actual work.
33.5	Subject to any deduction which BHEL may be authorized to make under the contract, the successful bidder shall on the certification of BHEL engineer at site, be entitled to payment as per billing schedule.
33.6	However no extra payment shall be made in the event of deferment in payment.
33.7	All admissible recovery/ adjustment, etc. shall be made from interim payment.
<b>34.0</b>	<b>BILLING BREAK-UP</b>
34.1	Successful bidder shall submit detail billing schedule to BHEL for review & approval.
34.2	Progressive payment shall be made as per following billing break-up, in conjunction with terms of payment provision of the tender.
34.3	10 % of basic price will be released on submission and approval of all basic design documents such as data sheets/ drawings, quality plans etc. as per tender specification.
34.4	80 % (Eighty percent) of basic price along with 100 % Freight will be released after receipt of materials, its proper & safe storage, and physical verification at site on prorata basis as per approved billing schedule. Documents (required sets), as applicable, for such payment are as follows:
34.4.1	Invoice/ excisable invoice in original.
34.4.2	LR/ RR (consignee copy).
34.4.3	Material Receipt Certificate (MRC). Collection of MRC from site and its submission for claiming the payment shall be successful bidder's responsibility.
34.4.4	Packing list.
34.4.5	BHEL/ customer material dispatch clearance certificate (MDCC) enclosing QS note, inspection & test certificate, wherever applicable.
34.4.6	Copy of letter, addressed to insurance company intimating dispatch.
34.5	5 % (Five percent) of basic price shall be released against entire supply completion.
34.6	5 % (Five percent) of basic price will be released against (i) Trial run of the system/ package; (ii) Successful completion of the load test/ PG test/ demonstration test of the system/ package, as applicable; (iii) Submission of final documents, eg. as-built drawings, O&M manual etc.  In case of delay in completion of above activities by 4 (four) months from receipt of the last item at site, for reasons not attributable to you, then this amount can be paid on submission of BG of equivalent amount, valid initially for 6 months & to be revalidated till completion of above activities.  However, successful bidder shall fulfill all formalities for final billing/ contract closing and certification of completion of all supplies prior to drawing this payment.
34.6.1	This 5% (Five percent) payment will be released after confirmation of full GST Credit to BHEL. Any Interest if levied thereon, for reasons elaborated in tax & duties clause of the tender and attributable to the bidder, will be recovered from the Final Payment / Retention amount.
34.7	Applicable GST shall be released to the vendor upon compliance of following:
34.7.1	Vendor declaring such Invoice in his GSTR-1
34.7.2	Material Receipt Certificate (MRC)
34.7.3	Confirmation of payment of GST thereon by vendor on GSTN Portal
34.7.4	Above is subject to receipt of goods / service and tax invoice thereof along with vendor declaring invoice in his return and paying GST within timeline prescribed for availing ITC by BHEL.

## TENDER NO – PSER:SCT:RKL-M1828:17 (TCN-11)

VOLUME-IF-CML-S, R-02	TECHNICAL CONDITIONS OF CONTRACT (SUPPLY)	PAGE 12 OF 14
--------------------------	--	---------------

34.8	BHEL site, at discretion, may further split up the above percentages billing break-up and affect payment to suit the site condition, cash flow requirement, according to the progress.
34.9	The billing break-up is drawn for progressive payment and shall not be construed as the value/ price of corresponding item, unless otherwise decided by BHEL.
<b>35.0</b>	<b>MOBILISATION ADVANCE/ INTEREST BEARING RECOVERABLE ADVANCE</b>
	Not applicable for this tender.
<b>36.0</b>	<b>ESCALATION (PVC)</b>
	Not applicable for this tender.
<b>37.0</b>	<b>OVER RUN COMPENSATION (ORC)/ RATE REVISION</b>
	Not applicable for this tender.
<b>38.0</b>	<b>LIQUIDATED DAMAGE AND OTHER PENALTIES</b>
38.1	If the successful bidder fails to complete entire scope of work within completion period, as mentioned in the clause no. 29.1 of volume ID (SCC-Service) of the tender, for reasons attributable to them, BHEL shall have the right to recover, as liquidated damages (LD), a sum equivalent to 0.5% of contract price (supply part), including taxes, duties, etc. for delay of each week or part thereof.  <b>NOTE:</b> SINCE, IT IS A TURNKEY PACKAGE; LD SHALL BE LEVIABLE ONLY IN CASE OF DELAY IN COMPLETION OF ENTIRE SCOPE OF WORK (MAIN SUPPLY & MAIN SERVICE EXCLUDING O&M). NO LD SHALL BE WITHHELD, IF THERE IS DELAY ONLY IN SUPPLY, BUT THE ENTIRE SCOPE OF WORK IS COMPLETED ON TIME AS PER VOLUME ID.
38.2	The liability for delay shall not in any case exceed 5 % (Five percent) of the contract price (Supply part), including taxes, duties, etc.
38.4	BHEL shall deduct aforesaid amounts from any money due or which may become due to the successful bidder and/ or recover from the bank guarantees/ security deposit of the successful bidder. To be entitled to impose such compensation/ penalty/ recovery, BHEL will not be required to prove that they have incurred such amount as actual damage.
38.5	BHEL reserve the right to complete the job through other resource on account of and at the risk & cost of successful bidder without notice to successful bidder of the work not so executed, without cancelling the order/ contract in respect of the work not yet due for completion.
38.6	BHEL reserve the right to cancel the order/ contract or a portion thereof for the work not so completed at the risk & cost of the successful bidder and the successful bidder shall be liable to BHEL for any excess costs thereof.
38.7	The successful bidder shall continue with performance of the order/ contract under all circumstances, to the extent not cancelled.
38.8	Where action is taken as per above, the successful bidder shall be liable for any loss, which BHEL may sustain on that account. The successful bidder shall not be entitled to any gain on such action and the manner & the method of such purchase shall be at the discretion of BHEL. It shall not be obligatory on the part of BHEL to serve a notice of such completion, through other resource, on successful bidder.
38.9	All other terms & conditions of GCC shall be applicable.
<b>39.0</b>	<b>GUARANTEE / WARRANTY, AND LATENT DEFECT LIABILITY</b>
<b>39.1</b>	<b>GUARANTEE / WARRANTY</b>
39.1.1	The successful bidder shall warrant that the equipment will be new and in accordance with the contract documents and free from defects arising due to deficiencies in design and engineering and from defects in material and workmanship for a period of twelve (12) calendar months commencing immediately upon the satisfactory completion of trial operations and handing over. The equipment shall operate satisfactorily and reliably and the performance and efficiency of the equipment (s) shall not be less than the respective guaranteed values.
39.1.2	The successful bidder shall be liable to repair or replace/ upgrade with specific consent of owner, any defective parts that may develop in the plant of their own manufacture or those their sub-suppliers under the conditions provided for by the contract and under proper use and arising solely from faulty design, materials and/ or workmanship. Any defect removal at site by repair/ up-gradation of the installed equipment/ component/ material will be permitted by the owner only when such repair/ up-gradation in the meantime, is not detrimental to commercial use of the plant. All replaced defective parts shall be returned to the successful bidder unless otherwise arranged. No repairs or replacement shall normally be carried out by the engineer when the plant is under the supervision of the successful bidder's supervisory engineers.
39.1.3	The successful bidder's obligations against the above clause shall be limited to repairing or replacing with all incidental charges from site to the successful bidder's work and/ or their

	sub-supplier's works and back to site. In case of defective parts not repairable at site but, essential in the meantime for the commercial operation of the equipment, the successful bidder and the purchaser/ owner shall mutually agree to a program of replacement or renewal which will minimize to the maximum extent interruption in the operation of the equipment.
39.1.4	The acceptance of the equipment by the engineer shall in no way relieve the successful bidder of their obligation under this clause.
39.1.5	In the event of any emergency where, in the judgment of the engineer, delay would cause serious loss or damages, repairs or adjustment may be made by the engineer or a third party chosen by the engineer without advance notice to the successful bidder and the cost of such work shall be paid by the successful bidder. In the event such action is taken by the engineer, the successful bidder will be notified promptly and he shall assist wherever possible in making necessary corrections. This shall not relieve the successful bidder's liability under the terms & conditions of the contract.
39.1.6	If it becomes necessary for the successful bidder to replace or renew any defective portions of the plant, the provision of this clause shall apply to portion of the plant so replaced or renewed until the expiration of six months from the date of such replacement or renewal or until the end of the warranty period as specified in clause whichever may be later. If any defects are not remedied within 30 days, the engineer may proceed to do the work at the successful bidder's risk & cost, but without prejudice to any other rights which BHEL may have against the successful bidder in respect of such defects.
39.1.7	If the replacement or renewals are of such character as may affect the efficiency of the plant, the purchaser/ owner shall have the right to give to the successful bidder within one month of such replacement or renewal, notice in writing that 'acceptance tests on completion' be made, in which case such tests shall be carried out as per approved QAP/ BHEL guidelines.
39.1.8	The repaired or new parts will be furnished & erected free of cost by the successful bidder. If any repair is carried out on their behalf at the site, the successful bidder shall bear the cost of such repairs.
39.1.9	The cost of any special or general overhaul rendered necessary during the maintenance period due to defects in the plant or defective work carried out by the successful bidder shall be borne by the successful bidder.
39.1.10	In respect of goods supplied by sub-successful bidders to the successful bidder where a longer guarantee (more than 12 months) is provided by such sub-vendor, the owner shall be entitled to the benefit of such longer guarantee.
39.2	<b>LATENT DEFECT LIABILITY</b>
39.2.1	At the end of the warranty/guarantee period, the successful bidder's liability ceases except for the latent defects. The liability under latent defects warranty for the scope of work, including spares (if any), shall be limited to a period of five (5) years from the end of warranty/guarantee period. For the purpose of this clause, the latent defects shall be the defects inherently lying within the material or arising out of design deficiency.
39.3	Other provision shall be as per the GCC.
40.0	<b>CONTRACT RATE/ PRICE</b>
40.1	Bidder shall quote their price as per the format of Volume-III, price schedule (Latest revision) only.
40.2	While, total price will be considered for evaluation, as per provision of tender, separate orders will be placed as per price schedule.
41.0	<b>EXCLUSION</b>
41.1	Supply of Various Electrical and C&I items as detailed in Section C3 of technical specifications. However, any other item not contemplated as BHEL supply in Section C3 of technical specifications will have to be supplied by the successful bidder within the quoted rates.
41.0	<b>OTHER TERMS</b>
	All other term & conditions of this specification shall be governed by the pertinent provisions of GCC & other volumes of this tender, as applicable.

TENDER NO – PSER:SCT:RKL-M1828:17 (TCN-11)		
VOLUME-IF-CML-S, R-02	TECHNICAL CONDITIONS OF CONTRACT (SUPPLY)	PAGE 14 OF 14

**ANNEXURE-I**  
**LIST OF MANUFACTURERS FOR GRP PIPELINE**

The successful bidder shall arrange to supply and install GRP pipeline from any of the below mentioned manufacturers:

- a) M/s Graphite India, Nasik (Approved upto 1000 DN)
- b) M/s Shriram SEPL, Chennai (Approved upto 1100 DN),
- c) M/s EPP Composites Pvt. Ltd. (Approved upto 900 DN),
- d) Any other NTPC/NSPCL approved vendor.

**VOLUME-III  
PRICE SCHEDULE, REV-01**

**Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.**

**TENDER NO - PSER:SCT: RKL-M1828:17**

**PREAMBLE**

SL NO	DESCRIPTION
1	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully before filling in rates for various items. Clauses under this preamble shall be read in conjunction with various volumes of tender and other tender sections as applicable and shall have precedence over any contrary statement mentioned anywhere in this document.
2	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions. Drawings enclosed with the tender are only preliminary and for tender purposes and giving some idea of the work involved. The work is to be executed as per drawings & documents, which shall be furnished during execution.
3	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the complete tender document and this schedule.
5	The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains, within fifteen percent ( $\pm 15\%$ ) of the awarded price as per LOI .
6	Prior written approval of BHEL shall be sought by the contractor in case quantity variation of any item crosses +50% (plus fifty percent) limit during execution and approval to be obtained before execution of further quantity for this item.
7	In case Sealed /Paper Price Bids are opened for finalisation of the tender, for any Item Rate/BOQ based contract, possibility of variation of quantity/ addition/deletion of items can not be ruled out. Under such circumstances, after execution of work, if it is observed that standing as L-1 is changed based on actual quantity executed, the bidder shall give suitable rebate to maintain your standing as L-1. Since this aspect can be assessed at the end of execution, necessary adjustment will be effected at the end of execution in final bill.This condition shall not be applicable where the tender is finalised through Reverse Auction.
8	BHEL reserve the right to rationalize the rates, quoted by L-1 bidder against unit rate items and/ or other optional items with respect to item-wise lowest rates (amongst the participating bidders), before placement of order.
9	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing , clearing of old structures and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same.However, if separate rate for such item is available in the rate schedule, the same shall be considered.
10	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
11	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted as per BHEL approved payment schedule/billing break-up.
12	The tender shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
13	No splitting of the job is envisaged. Decision of BHEL in this regard shall be final and binding to the bidders.
14	Bidders are not allowed to alter the Price Schedule format including item description,quantity etc. and the offer is liable for rejection if the bidders submit their prices in Price Schedules modified by them.BHEL reserves the right to reject the offers of bidders who submit offers in Price Formats which are modified/altered by them. Also putting any comments instead of rates/price in the designated column of the rate schedule shall make the offer liable for rejection.

<b>VOLUME-III PRICE SCHEDULE, REV-01</b>	
<b>Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.</b>	
<b>TENDER NO - PSER:SCT: RKL-M1828:17</b>	
<b>PREAMBLE</b>	
15	Bidders to note that for Civil &/Structural packages, against a particular item against a ST No. appearing in more than one schedule of the BOQ, same rate must be quoted in all schedules for that particular items with same descriptions. If by error, different rates are quoted in different schedules for same ST No.(i.e. item with same description), then the higher of the rates shall be considered for evaluation but awarding shall be done with the lower rate ,if the bidder becomes L-1."
16	For Lumpsum Service Contract : The items/components indicated in the tender is indicative and may vary to any extent. No compensation shall be payable in case of any variation in the items/components listed in the bill of quantities if the executed weight remains within the variation limit. However, in case of deletion of any item or addition of new items over and above the items listed or variation of existing quantity beyond variation limit specified, adjustment (i.e. Payment or recovery as the case may be ) shall be done on pro-rata basis based on the Rate per MT worked out from the quoted lump-sum Price and the total weight of components listed /indicated in price schedule plus 15% weight variation limit.
17	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
18	In case of tender for Civil and/or Structural works, if the Non-schedule items are not quoted by the bidder, it will be treated at par with rate of corresponding item of CPWD/PWD/DSR schedule as prescribed in the tender/BOQ cum Rate Schedule.
19	No interest, whatsoever, shall be payable by BHEL on the security deposit, any bank guarantee submitted or any amount due to successful bidder/contractor.
20	Size and weights of various items are mentioned in the attached BOQ cum rate/price schedule for reference purpose only & these shall not be taken into consideration for quoting/calculating amount in the rate schedule. These shall be utilised as per relevant sections of tender. Bidders shall quote for each item in the rate column, taking unit as mentioned in the quantity column. Rates shall be filled in both figures and words. Amount shall be calculated based upon these rates multiplied by the mentioned quantity for the respective items.
21	Bidder's Total price will be shall be considered for evaluation unless stated otherwise.
22	In case of BOP packages, if Bidder does not quote/indicate the price for freight chagses against indicated rate schedule, the same shall be considered as 2% of basic price and adjusted with the total quoated price against each item keeping the total quoted price unaltered.

VOLUME-III PRICE SCHEDULE, REV-01		
Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.		
TENDER NO - PSER:SCT: RKL-M1828:17		
SCH-1 - TOTAL PRICE		
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	TOTAL QUOTED PRICE (Rs) (in figures & words)
1.0	Total price for supply and service parts for design, engineering, manufacturing, inspection, testing, painting, supply/ delivery duly packed at project site including freight, receipt, unloading, storage & handling at site, construction with associated civil work at site (including supply of steel & cement), erection, laying, fixing, commissioning, final painting at site, trial run, handing over, etc. in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations, agreements till date, complete with all accessories, including supply of erection & commissioning spares, special tools & tackles, operation & maintenance of <b>Raw water intake system including Intake Well, Pump House and Cross Country GRP Pipeline</b> for 1x250 MW PP-II Expansion Project, NSPCL, Rourkela, Odisha.	
<b>NOTE</b>		
1.0	Bidder to note that total price at sl no 1.0 above shall be considered for evaluation & awarding. As such total price at sl no 1.0 shall be complete in all respect for the full scope defined and considering all tender terms and conditions.	
2.0	Based on this break-up and further break-up in subsequent schedules, separate orders will be placed for (i) Main Supply, (2) Main Service, and (3) Operation and maintenance, as per respective price components.	
3.0	Bidder shall furnish broad break-up of system-wise prices in SCH-2 - Total price break-up into various items/ systems as per prescribed format.	
3.1	Bidder shall furnish Main supply price break-up as per SCH-3, into various items/ systems as per prescribed format.	
3.2	Bidder shall furnish Main service price break-up as per SCH-4, into various items/ systems as per prescribed format.	
3.3	Bidder shall furnish Operation & Maintenance price break-up as per SCH-5.	
4.0	If the bidder fail to furnish break-up as per above or furnish break-up in variance to above, BHEL reserve the right to fill-in or amend break-up, as applicable, as per BHEL's discretion. Decision of BHEL in this regard shall be final & binding on bidder.	
5.0	In case bidder do not indicate price component or indicate 'NA', etc in the relevant schedule for any items component required for completion of package, if applicable, they have to supply & execute such items, if required on detail engineering for completion of the package, at no extra cost to BHEL.	
6.0	Quantity of variable items (marked*), if included, is likely to vary during execution stage. The unit rates quoted & accepted by BHEL for these items shall be considered and no separate unit rates shall be quoted. Unit rates shall be valid throughout contract.	
7.0	Other optional items, if included, shall not be considered for evaluation.	
8.0	BHEL reserve the right to rationalize the rates, quoted by L-1 bidder against variable items, Unit Rate items other optional ,items with respect to item-wise lowest rates (amongst the participating bidders), before placement of order.	
9.0	Any item as per scope of work, if not included in the price quoted above and shown separately will not be taken cognizance of and the offer shall be liable for rejection.	
10.0	Price format shall not be changed by bidder in any case, since it may lead to cancellation of bidder's offer.	

<b>VOLUME-III PRICE SCHEDULE, REV-01</b>		
<b>Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.</b>		
<b>TENDER NO - PSER:SCT: RKL-M1828:17</b>		
<b>SCH-2 - TOTAL PRICE BREAK-UP</b>		
<b>SL NO</b>	<b>DESCRIPTION OF EQUIPMENT/ ITEM</b>	<b>AMOUNT (Rs.)</b>
<b>BREAK-UP OF TOTAL PRICE, SL NO 1.0 OF SCH-1</b>		
<b>1.1</b>	<b>MAIN SUPPLY</b> Total price for supply parts for design, engineering, manufacturing, inspection, testing, painting, supply/ delivery duly packed at project site including freight, etc. in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations, agreements till date, complete with all accessories, including supply of erection & commissioning spares, special tools & tackles, of Raw water intake system including Intake Well, Pump House and Cross Country GRP Pipeline for 1x250 MW PP-II Expansion Project, NSPCL, Rourkela, Odisha.	
<b>1.2</b>	<b>MAIN SERVICE</b> Total price for service parts for receipt, unloading, storage & handling at site, construction with associated civil work at site (including supply of steel & cement), erection, laying, fixing, commissioning, final painting at site, trial run, handing over, etc. in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations, agreements till date, complete with all accessories, including supply of erection & commissioning spares, special tools & tackles, of Raw water intake system including Intake Well, Pump House and Cross Country GRP Pipeline for 1x250 MW PP-II Expansion Project, NSPCL, Rourkela, Odisha.	
<b>1.3</b>	<b>OPERATION &amp; MAINTENANCE</b> Total price for operation & maintenance of complete Raw water intake system including Intake Well, Pump House & Cross Country GRP Pipeline as per tender and as per direction of BHEL.	
<b>1.4</b>	<b>TOTAL PRICE (1.1 + 1.2 + 1.3)</b>	
<b>NOTE</b>		
1.0	Bidder to note that total price at sl. no. 1.4 above shall be same as total quoted price at sl. no. 1.0 in SCH-1.	
2.0	Bidder to note that, based on above break-up, separate orders will be placed for (i) Main Supply, (ii) Main Service, and (iii) Operation and maintenance.	

<b>VOLUME-III</b>				
<b>PRICE SCHEDULE, REV-01</b>				
<b>Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.</b>				
<b>TENDER NO - PSER:SCT: RKL-M1828:17</b>				
<b>SCH-3 - MAIN SUPPLY PRICE BREAK-UP</b>				
<b>SL NO</b>	<b>DESCRIPTION OF EQUIPMENT/ ITEM</b>	<b>QUANTITY</b>	<b>RATE (Rs.)</b>	<b>AMOUNT (Rs.)</b>
<b>BREAK-UP OF MAIN SUPPLY PRICE, SL NO 1.1 OF SCH-2</b>				
<b>1.1</b>	<b>PUMP HOUSE, INTAKE WELL &amp; ASSOCIATED WORKS</b>			
	Total lumpsum price for supply for design, engineering, manufacturing, inspection, testing, painting, supply/ delivery duly packed at project site including freight, etc. in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations, agreements till date, complete with all accessories, including supply of erection & commissioning spares, special tools & tackles, of <b>Raw water intake system including Intake Well and Pump House</b> for 1x250 MW PP-II Expansion Project, NSPCL, Rourkela, Odisha.	1	LOT	
<b>1.2</b>	<b>CROSS COUNTRY GRP PIPELINE</b>			
	Total price for supply parts for design, engineering, manufacturing, inspection, testing, painting, supply/ delivery duly packed at project site including freight, etc. in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations, agreements till date, complete with all accessories, including supply of erection & commissioning spares, special tools & tackles, of <b>Cross Country GRP Pipeline</b> for 1x250 MW PP-II Expansion Project, NSPCL, Rourkela, Odisha.	9000*	RM	
<b>1.3</b>	<b>TOTAL PRICE - MAIN SUPPLY (1.1 + 1.2)</b>			
<b>NOTE</b>				
1.0	Bidder to note that total price at sl. no. 1.3 above shall be same as total quoted price at sl. no. 1.1 in SCH-2.			
2.0	Quantity of variable items (marked*), if included, is likely to vary during execution stage. The unit rates quoted & accepted by BHEL for these items shall be considered and no separate unit rates shall be quoted. Unit rates shall be valid throughout contract.			

<b>VOLUME-III PRICE SCHEDULE, REV-01</b>				
<b>Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.</b>				
<b>TENDER NO - PSER:SCT: RKL-M1828:17</b>				
<b>SCH-4 - MAIN SERVICE PRICE BREAK-UP</b>				
<b>SL NO</b>	<b>DESCRIPTION OF EQUIPMENT/ ITEM</b>	<b>QUANTITY</b>	<b>RATE (Rs.)</b>	<b>AMOUNT (Rs.)</b>
<b>BREAK-UP OF MAIN SERVICE PRICE, SL NO 1.2 OF SCH-2</b>				
<b>1.1</b>	<b>PUMP HOUSE, INTAKE WELL &amp; ASSOCIATED WORKS</b>			
	Total lumpsum price for service parts for receipt, unloading, storage & handling at site, construction with associated civil work at site (including supply of steel & cement), erection, commissioning, final painting at site, trial run, handing over, etc. in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations, agreements till date, complete with all accessories, including supply of erection & commissioning spares, special tools & tackles, of <b>Raw water intake system including Intake Well and Pump House</b> for 1x250 MW PP-II Expansion Project, NSPCL, Rourkela, Odisha.	1	LOT	
<b>1.2</b>	<b>CROSS COUNTRY GRP PIPELINE</b>			
	Total price for service parts for receipt, unloading, storage & handling at site, construction with associated civil work at site (including supply of steel & cement), erection, laying, fixing, commissioning, final painting at site, trial run, handing over, etc. in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in the technical specification and terms & conditions of tender, taking into account all clarifications, confirmations, agreements till date, complete with all accessories, including supply of erection & commissioning spares, special tools & tackles, of <b>Cross Country GRP Pipeline</b> for 1x250 MW PP-II Expansion Project, NSPCL, Rourkela, Odisha.	9000*	RM	
<b>1.3</b>	<b>TOTAL PRICE - MAIN SERVICE (1.1 + 1.2)</b>			
<b>NOTE</b>				
1.0	Bidder to note that total price at sl. no. 1.3 above shall be same as total quoted price at sl. no. 1.2 in SCH-2.			
2.0	Quantity of variable items (marked*), if included, is likely to vary during execution stage. The unit rates quoted & accepted by BHEL for these items shall be considered and no separate unit rates shall be quoted. Unit rates shall be valid throughout contract.			

**VOLUME-III  
PRICE SCHEDULE, REV-01**

**Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.**

**TENDER NO - PSER:SCT:RKL-M1828:17**

**SCH-5 - OPERATION & MAINTENANCE (O&M) PRICE BREAK-UP**

SL. NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT RATE (Rs.)	TOTAL AMOUNT (Rs.)
O&M PRICE BREAK-UP OF 1.3 OF SCH-2.				
1.0	Operation & maintenance of complete Raw water intake system including Intake Well, Pump House & Cross Country GRP Pipeline as per tender and as per direction of BHEL.	6*	MONTH	
NOTE				
1.0	Bidder shall quote rate per month and amount in this schedule. Total amount shall correspond to sl no 1.3 of SCH-2.			

**FORMAT FOR NO DEVIATION CERTIFICATE**  
**(To be submitted in the bidder's letter head)**

BHARAT HEAVY ELECTRICALS LIMITED,  
Power Sector - Eastern Region,  
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,  
Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	Design, Engineering, Manufacturing, Supply, Erection, Testing, Commissioning, etc. of Raw water intake system including Cross Country GRP Pipeline for 1x250 MW unit at PP-II Expansion, NSPCL, Rourkela, Odisha.	
Ref	1.0	Tender no PSER:SCT:RKL-M1828:17.
	2.0	BHEL's NIT, vide reference no PSER:SCT:RKL-M1828:5666, Dated 27-04-2017.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:RKL-M1828:TCN-01, Dated 16-05-2017.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:RKL-M1828:TCN-02, Dated 23-05-2017.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:RKL-M1828:TCN-03, Dated 03-06-2017.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:RKL-M1828:TCN-04, Dated 13-06-2017.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:RKL-M1828:TCN-05, Dated 17-06-2017.
	8.0	BHEL's TCN-06, vide reference no PSER:SCT:RKL-M1828:TCN-06, Dated 19-06-2017.
	9.0	BHEL's TCN-07, vide reference no PSER:SCT:RKL-M1828:TCN-07, Dated 21-06-2017.
	10.0	BHEL's TCN-08, vide reference no PSER:SCT:RKL-M1828:TCN-08, Dated 27-06-2017.
	11.0	BHEL's TCN-09, vide reference no PSER:SCT:RKL-M1828:TCN-09, Dated 01-07-2017.
	12.0	BHEL's TCN-10, vide reference no PSER:SCT:RKL-M1828:TCN-10, Dated 06-07-2017.
	13.0	BHEL's TCN-11, vide reference no PSER:SCT:RKL-M1828:TCN-11, Dated 14-07-2017.
	14.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted/uploaded offer/documents in accordance with tender instructions with acceptance of the terms & conditions of the tender by us and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized  
representative of the bidder)

<p>पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय) POWER SECTOR EASTERN REGION DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091 फैक्स/Fax : (033) 23211960 फोन/Phone : बोर्ड/EPABX : 033-2339 8000</p>
--