

Annexure-A

Name of Contractor: _____

TENDER NO. : FF/19/MSM/RV/19-20/T-05 DTD:_____

WORK: Assistance to maintenance of equipments in SMS & Overhauling/Cleaning of Vacuum System in SMS.

DATE OF OPENING:_____

TIME OF : 12 months.
COMPLETION

E.MONEY REQD.: Rs. 106859 DETAILS: _____

CONTRACTOR'S PF NO. _____ ESI NO. _____

LICENCE NO. _____ VALID UPTO _____

SCOPE OF WORK :

Work Schedule	DESCRIPTION OF WORK	QTY	RATE	AMOUNT
1.	<p>Work Schedule 1: Breakdown and Preventive Maintenance of VAD 1&2, VOD and 70T EAF:</p> <p>i). Repair and fitting of Hydraulic power Pack, Cleaning and changing of filter unit, checking and making of oil level, Hydraulic and Pneumatic cylinders, Pilot Valve, Pump motors along with complete assembly. Cleaning/repair/fitting of Copper insert, Bus Tube, insulation change, tightening of bolt of all the water cooled cable, water leakage/blockage rectification, Roof/water cooled panels testing/repair & changing work and other mechanical and hydraulic maintenance related work of VAD 1&2, VOD & 70T EAF.</p> <p>ii). Repair/ Maintenance of PLC Controlled DC Drive/Thyristor control system, Resistance box, winch motors, Limit switch, MCC and Control Desk. Repair/Maintenance of 33KV/11 KV Substn., 400sq mm/300sq mm XLPE</p>	746 Nos. of Heat A	Rs. _____ Per Heat A	

	<p>Cable, Making of transformer oil level, Heat Exchanger cleaning, Maint. of Furnace Transformer, riser, water cooled cable repair/change and other allied maintenance work of HT and LT power/control system of VAD 1&2, VOD & 70T EAF.</p> <p>iii). Repair/Maintenance of Temperature measuring instruments, Temperature and Pressure Gauge, Making/Repair of Lance and other allied electronic instrumentation work of VAD 1&2, VOD & 70T EAF.</p> <p>Note:</p> <p>1. For efficient preventive and breakdown maintenance of equipments, minimum 08 Nos. & maximum of 10 Nos. of Skilled Mandays to be engaged per day (ie. In A & B shift).</p>			
2.	<p>Work Schedule 2: Preventive Maintenance on Sunday/Holidays and “C” Shift: Preventive maintenance work all mechanical, hydraulic, electrical and electronics part of VAD-1 & 2 and 70T EAF.</p> <p>Note:</p> <p>1. For efficient preventive maintenance on Sunday/Holidays and “C” Shift, minimum 3 Nos. & maximum 5 Nos. of Skilled Mandays to be engaged per Sunday/Holidays/“C” Shift.</p>	72 Nos. of Preventive Maintenance (WS-2)	Rs. _____ Per Preventive	
3.	<p>Work Schedule 3: Breakdown and Preventive Maintenance of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boilers Electrical Maint. Ladle Pre Heater and other allied equipments in SMS:</p> <p>i). Repair and fitting of Hydraulic power Pack, Cleaning and changing of filter unit, checking and making of oil level, Hydraulic and Pneumatic cylinders, Pilot Valve, Pump motors along with complete</p>	1413 Nos. of Heat B	Rs. _____ Per Heat B	

<p>assembly. Cleaning/repair/fitting of Copper insert, Bus Tube, insulation change, tightening of bolt of all the water cooled cable, water leakage/blockage rectification, Roof/water cooled panels testing/repair & changing work and other mechanical and hydraulic maintenance related work of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boilers Electrical Maint., Ladle Pre Heater and other allied equipment in SMS.</p> <p>ii). Repair/ Maintenance of PLC Controlled DC Drive/Thyristor control system, Resistance box, winch motors, Limit switch, MCC and Control Desk. Repair/Maintenance of 33KV/11 KV Substn., 400sq mm/300sq mm XLPE Cable, Making of transformer oil level, Heat Exchanger cleaning, Maint. of Furnace Transformer, riser, water cooled cable repair/change and other allied maintenance work of HT and LT power/control system of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boilers Electrical Maint. Ladle Pre Heater and other allied equipment in SMS.</p> <p>iii). Repair/Maintenance of Temperature measuring instruments, Temperature and Pressure Gauge, Making/Repair of Lance and other allied electronic instrumentation work of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boilers Electrical Maint. Ladle Pre Heater and other allied equipment in SMS.</p> <p>Note:</p> <ol style="list-style-type: none"> 1. For efficient preventive and breakdown maintenance of equipments, minimum 04 Nos. & maximum of 06 Nos. of Skilled Mandays & minimum 1 & maximum 3 Nos. of unskilled Mandays to be engaged per day (ie. In A & B shift). 			
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4.	<p>Work Schedule 4: Preventive Maintenance on Sunday/Holidays/“C” Shift:</p> <p>Preventive maintenance work all mechanical, hydraulic, electrical and electronics part of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boiler Electrical Mint. Ladle Pre Heater and other allied equipments in SMS.</p> <p>Note:</p> <p>1. For efficient preventive and breakdown maintenance of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boiler Electrical Mint. Ladle Pre Heater and other allied equipments in SMS, minimum 1 & maximum 2 Nos. of Skilled Mandays & minimum 1 & maximum 3 Nos. of unskilled Mandays to be engaged per Sunday/Holydays/“C” Shift.</p>	72 Nos. of Preventive Maintenance (WC-3)	Rs. _____ Per Preventive Maintenance	
5.	<p>Work Schedule 5:</p> <p>A.) Supervision, Overhauling/cleaning of New ejector System in installed in Heavy Forge Shop, Old Ejector System installed in Pit Side & WRP unit in SMS: Supervision, Overhauling/Cleaning of New Ejector System and Old Ejector System each comprises of 3 Nos. of Ejectors, Nozzles, condenser and its connecting Pipe Line (Water, Steam and vacuum pipe line) along with Overhauling/Cleaning of WRP unit (Pump, Motor & Cyclone precipitator) and connecting Pipe Line (Water & Vacuum Pipe Line) to ensure less than 1 Torr vacuum in blank. Repair & maintenance of pipelines & platforms, dust cleaning of platforms & extension of pipelines & platforms on as & when required basis.</p> <p>B.) Cleaning of equipments & Transformers and store updating work.</p>	1058 Nos. of Heat C	Rs. _____ Per Heat C	

	Note: 1. For efficient preventive and breakdown maintenance of Vacuum Systems in SMS, minimum 2 & maximum 3 No. of Skilled Mandays, minimum 1 & maximum 2 No. of Semi-skilled Mandays & minimum 1 & maximum 3 Nos. of unskilled Mandays to be engaged per per day (ie. In A & B shift).			
	Total :			
	GST EXTRA			

Total Amount in words: _____

Note:

1. Material will be issued free of cost.
2. L1 will be decided on comparing the total value of work quoted (ie. Sum of Work Schedule 1, 2, 3, 4 & 5)
3. Work is to be completed in 12 months.
4. Work will be governed by BHEL WC rules & Work policy-2016.
5. Safety rules are to be followed strictly.
6. The terms and conditions attached to be followed strictly.

SCOPE OF WORK & MANPOWER DEPLOYMENT, QUALIFICATION & EXPERIENCE

A. SCOPE OF WORK:

Work Schedule 1: Breakdown and Preventive Maintenance of VAD 1&2, VOD and 70T EAF:

- i). Repair and fitting of Hydraulic power Pack, Cleaning and changing of filter unit, checking and making of oil level, Hydraulic and Pneumatic cylinders, Pilot Valve, Pump motors along with complete assembly. Cleaning/repair/fitting of Copper insert, Bus Tube, insulation change, tightening of bolt of all the water cooled cable, water leakage/blockage rectification, Roof/water cooled panels testing/repair & changing work and other mechanical and hydraulic maintenance related work of VAD 1&2, VOD & 70T EAF.
- ii). Repair/ Maintenance of PLC Controlled DC Drive/Thyristor control system, Resistance box, winch motors, Limit switch, MCC and Control Desk. Repair/Maintenance of 33KV/11 KV Substn., 400sq mm/300sq mm XLPE Cable, Making of transformer oil level, Heat Exchanger cleaning, Maint. of Furnace Transformer, riser, water cooled cable repair/change and other allied maintenance work of HT and LT power/control system of VAD 1&2, VOD & 70T EAF.
- iii). Repair/Maintenance of Temperature measuring instruments, Temperature and Pressure Gauge, Making/Repair of Lance and other allied electronic instrumentation work of VAD 1&2, VOD & 70T EAF.

Work Schedule 2: Preventive Maintenance on Sunday/Holidays and “C” Shift:

Preventive maintenance work all mechanical, hydraulic, electrical and electronics part of VAD-1 & 2 and 70T EAF.

Work Schedule 3: Breakdown and Preventive Maintenance of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boilers Electrical Maint. Ladle Pre Heater and other allied equipments in SMS:

- i). Repair and fitting of Hydraulic power Pack, Cleaning and changing of filter unit, checking and making of oil level, Hydraulic and Pneumatic cylinders, Pilot Valve, Pump motors along with complete assembly. Cleaning/repair/fitting of Copper insert, Bus Tube, insulation change, tightening of bolt of all the water cooled cable, water leakage/blockage rectification, Roof/water cooled panels testing/repair & changing work and other mechanical and hydraulic maintenance related work of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boilers Electrical Maint., Ladle Pre Heater and other allied equipment in SMS.

ii). Repair/ Maintenance of PLC Controlled DC Drive/Thyristor control system, Resistance box, winch motors, Limit switch, MCC and Control Desk. Repair/Maintenance of 33KV/11 KV Substn., 400sq mm/300sq mm XLPE Cable, Making of transformer oil level, Heat Exchanger cleaning, Maint. of Furnace Transformer, riser, water cooled cable repair/change and other allied maintenance work of HT and LT power/control system of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boilers Electrical Maint. Ladle Pre Heater and other allied equipment in SMS.

iii). Repair/Maintenance of Temperature measuring instruments, Temperature and Pressure Gauge, Making/Repair of Lance and other allied electronic instrumentation work of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boilers Electrical Maint. Ladle Pre Heater and other allied equipment in SMS.

Work Schedule 4: Preventive Maintenance on Sunday/Holydays/“C” Shift:

Preventive maintenance work all mechanical, hydraulic, electrical and electronics part of 10T, 30T EAF, Slide Gate Power Packs, VD Unit, Boiler Electrical Mint. Ladle Pre Heater and other allied equipments in SMS.

Work Schedule 5:

A). Supervision, Overhauling/cleaning of New ejector System in installed in Heavy Forge Shop, Old Ejector System installed in Pit Side & WRP unit in SMS:

Supervision, Overhauling/Cleaning of New Ejector System and Old Ejector System each comprises of 3 Nos. of Ejectors, Nozzles, condenser and its connecting Pipe Line (Water, Steam and vacuum pipe line) along with Overhauling/Cleaning of WRP unit (Pump, Motor & Cyclone precipitator) and connecting Pipe Line (Water & Vacuum Pipe Line) to ensure less than 1 Torr vacuum in blank. Repair & maintenance of pipelines & platforms, dust cleaning of platforms & extension of pipelines & platforms on as & when required basis.

B.) Cleaning of equipments & Transformers and store updating work.

B. MANPOWER DEPLOYMENT: The main responsibility of the deployed work force will be smooth operation of all equipments & vacuum system in SMS. For this, contactor will deploy adequate no. of qualified and experienced work force for assistance to the maintenance staff for maintenance of all equipments & vacuum system n SMS as per instructions of the Executive in charge. The desirable manpower and their minimum qualification criteria required to be supplied by the contactor at the site are as listed below:

1. **Fitters:** They should either have a qualification of ITI (Mechanical Fitter) or an experience of minimum 1 year in mechanical and hydraulic maintenance of machines.
2. **Electricians:** They should either have a qualification of ITI (Electrical/Electronics) or an experience of minimum 3 years in electrical and electronics maintenance of machines/equipments preferably including transformers, VCB Panels, Control systems, drives etc.
3. **Welder:** They should either have a qualification of ITI (Welder) or an experience of minimum 3 years in mechanical and hydraulic maintenance of machines.

The overall team must be experienced and must also be capable of handling maintenance activities and have basic knowledge of electrical, mechanical, hydraulic and electronics.

The deployment of work force will be in two shifts on regular basis and in third shift as per the exigencies of the work.

QUALIFYING CRITERIA

NIT NO.: FF/19/MSM/RV/19-20/T-05

Work: Assistance to maintenance of equipments in SMS & Overhauling/Cleaning of Vacuum System in SMS.

This section details minimum requirement on part of the bidder for the Works Contract for Equipments in Steel Melting Shop, CFFP. In general, the bidder must satisfy following criteria:

1. General Profile: The bidder must have working experience in the field below:

- 1.1. Electrical & Mechanical Retrofitting/ Reconditioning of Machine consisting reconditioning of machines, hydraulic system, electrical switchgear, PLCs & Drive.
OR
Maintenance of Machine including mechanical, hydraulic, electrical and electronic maintenance. Maintenance of electrical switchgear PLCs, Drives, etc.

2. Turnover and Financial Position:

2.1. Average annual financial turnover for the last 3 financial years ending 31st March (i.e. for the financial years 2015-16, 2016-17 & 2017-18), must not be less than Rs. 16.03 Lacs.

2.2. Bidder must submit proof of having carried out successfully work of similar nature as per clause 2.3 during last 7 years (i.e. after 1st June 2012).

2.3. The value of such works must be:

A. 3 similar completed works costing not less than the amount equal to 21.37 Lacs for each completed works with any reputed organization.

OR

B. 2 similar completed works costing not less than the amount equal to 26.71 Lacs for each completed works with any reputed organization.

OR

C. 1 similar completed works costing not less than the amount equal to 42.74 Lacs for each completed works with any reputed organization.

2.4. Similar work is defined as per Clause 1.1.

As a proof of experience, completion and performance certificate(s) from the original client(s) must be submitted.

CFFP:BHEL:RANIPUR:HARDWAR
SMS-M&S

NIT NO.: FF/19/MSM/RV/19-20/T-05

Information to be filled by the contractor:

1. Name, address & Ph No. of the contractor:
2. GSTIN OF CONTRACTOR: _____
3. Tender box in sealed condition will be present at Centralized Tender Room, CFFP till tender opening date.
4. The tender to be submitted in two part bid in two separate envelopes with clearly mentioning Technical Bid/ Price Bid over envelope by the bidders.
5. If it is found at any time that the particulars submitted by the contractor are false, suitable action will be taken & contract registration may be cancelled.
6. In case the price indicated in words and figures are different, the values indicated in words will be taken into consideration.
7. **PVC:** Price Variation clause is not applicable.
8. **GST:** GST shall be payable extra as applicable at the time of billing. However, taxes (where ITC applicable) shall be reimbursed only against the proof of deposit of the same to Govt. Account and fulfilment of other legal requirements by the contractor.
In case of rejection of Input Tax Credit (ITC) due to any default of Contractors the same shall be recovered by BHEL from the contractor.
9. **Payment:** Payment to the contractor will be made on achieving monthly milestone/ on the basis of work carried out by him, within 15 days of production of clear bills/invoice.
 - Payment against work schedule 1 shall be made as per no. of heat of VAD/VOD & 70T EAF (A).
 - Payment against work schedule 2 shall be made as per no. of preventive maintenance.
 - Payment against work schedule 3 shall be made as per no. of heat of 30T, 10T EAF & VD unit (B).
 - Payment against work schedule 4 shall be made as per no. of preventive maintenance.
 - Payment against work schedule 5 shall be made as per no. of heat of VAD/VOD & VD unit (C).

10. Criteria for Penalty:

a) The deduction against shortfall in minimum no. of mandays deployed shall be calculated as per given ratio: -

Work schedule 1: 2700 Mandays for 746 heats (A).

Work schedule 2: 288 Mandays for 72 Prev. Maint.

Work schedule 3: 2100 Mandays for 1413 heats (B).

Work schedule 4: 216 Mandays for 72 Prev. Maint.

Work schedule 5: 1732 Mandays for 1058 heats (C).

The cost of shortfall of man days deployed with respect to No. of Heat and No. of Preventive Maintenance will be deducted as penalty @ Rs. 654.7 per Mandays (Cost of one Un-skilled manday).

Penalty will be calculated on annual basis or closure of contract whichever is earlier & the amount will be deducted from the final bill of works contract.

Penalty Imposed on the contractor for the day

Amount of Penalty = No. of heat lost due to contractor's fault X Rate as per work order against Work schedule-1/ 3 respectively.

Penalty against heat loss due to contractor's fault shall be made from the running bill of the same month.

11. Tender Cost is NIL however EMD is to be submitted in the form of Demand Draft and Money Receipt Voucher from Finance Deptt. of CFFP/BHEL-Haridwar.

12. SPECIAL CONDITION FOR MSME:

“MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed at Annexure-I where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiencies in the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer.”

(Signature and Seal of the Tenderer)

ANNEXURE-I

**Certificate by Chartered Accountant on letter head
(only for those who are submitting EM-II Certificate)**

This is to certify that M/s....., (hereinafter referred to as 'company') having its registered office at..... is registered under MSMED Act 2006, (Entrepreneur Memorandum No (Part-II) dtd:....., Category:..... (Micro/Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year as per MSMED Act 2006 is as follows:

1. For Manufacturing Enterprises: Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No.S.O.1722(E) dated October 5, 2006 :

Rs.....Lacs

2. For Service Enterprises: Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006:

Rs.....Lacs

(Strike off whichever is not applicable)

The above investment of Rs.....Lacs is within permissible limit of Rs.....Lacs forMicro / Small **(Strike off which is not applicable)** Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro/ Small) **(Strike off which is not applicable)** and the date of graduation of such enterprise from its original category is..... (dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprise from its original category as notified vide S.O.No.3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name-

Membership number-

Seal of Chartered Accountant

GENERAL TERMS & CONDITIONS

1. BHEL shall have the privity of the contract with the contractor only and will give instructions to the contractor or his authorized representative. BHEL has nothing to do or concerned with the employment of workmen working for the contractor. The relationship between BHEL and the contractor will be that of independent entities and nothing herein contained will amount to joint venture, partnership or an employer - employee relationship.
2. The Contractor shall maintain regular contact with the contract executing officer of BHEL and will interact on matters relating to the work awarded under this contract.
3. In case the Contractor does not carry out the Contractual/Statutory obligations or the services rendered by him are found to be unsatisfactory, BHEL shall bring the same to his notice and he will be obliged to discharge the obligations and rectify the deficiency/anomaly within three days time failing which, BHEL reserves the right to terminate the contract without assigning any reason whatsoever. In such an event, no damages will be payable for short closure of the contract. The BHEL shall have the right for risk purchase clause.
4. The Contractor shall deposit an amount of Rs. 25 security to BHEL in the form of cash (As per Income Tax) pay order/bank guarantee (subject to maximum 50%)/DD issued by Bank acceptable to BHEL or FDR in the name of the Contractor A/C - BHEL duly discharged on the back. EMD deposited can be converted/adjusted in to security deposit. Security deposit can also be recovered @ 10% from the running bills. However, in such cases at least 50% of the Security Deposit should be deposited before start of the work and 50% from the running bills. This Security deposit shall be liable to be returned to the contractor after termination of the contract or at the end of it subject to payment of final Bill after deduction on account of company dues and non-deposit of statutory dues, production of No Demand Certificate and fulfillment of Guarantee/Warrantees, if any. No interest shall be payable on the security deposit.
5. The decision of BHEL regarding interpretation of any of the terms and conditions set forth in this agreement shall be final and binding on the Contractor.

16 13

6. Notwithstanding anything contained in this Agreement, the contract may be terminated by BHEL without assigning any reason therefor by giving a notice of 30 days to the contractor.
7. The contract will commence on _____ date and will remain valid for a period of _____ year(s) till _____ date. The parties reserve the right to extend the contract on mutually agreed terms and conditions.
8. All disputes arising in connection with the contract shall be settled by mutual consultation. If no agreement is reached the dispute shall be settled in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and the rules made thereunder. The dispute shall be referred for arbitration to any arbitrator to be appointed by the Head of CFFP / BHEL. The award of the arbitrator shall be final and binding on both the Parties. The venue of the Arbitration shall be Haridwar (U.K.) in India. The Award to be given by the Arbitration shall be a speaking award. The questions, disputes, differences arising under, out of or in connection with this contract shall be to the exclusive jurisdiction of Haridwar Courts.