

**BHARAT HEAVY ELECTRICALS LTD.  
CENTRAL FOUNDRY FORGE PLANT  
RANIPUR, HARDWAR  
MAINTENANCE & SERVICES DEPARTMENT  
MAINTENANCE-MACHINE SHOP**

NO. : CFFP/M&S/RMS/2K16/AMC/01/NIT

Date: January 11, 2016

**TENDER NOTICE – OPEN TENDER**

Two part Tenders in Sealed Envelopes are invited from technically and financially capable parties, having experience in work similar to- and interested in- the under mentioned works. The tender documents are available at website [www.bhel.com/www.bhelhwr.co.in](http://www.bhel.com/www.bhelhwr.co.in) in Tender Notification Section which can be downloaded. Earnest Money Deposit (EMD) & Tender cost, as mentioned in the Tender Documents is to be deposited along with the tender itself. Earnest money/Tender cost should be deposited in form of Cash Receipt or Demand Draft, **payable at Haridwar**, in favour of **Accounts Officer, CFFPP, BHEL, Haridwar** and must be enclosed with the tender. Failure of Earnest Money & Tender cost submission will lead to rejection of the tender. The tender should reach the office of the undersigned on or before **10/02/2016 at 2:30PM**, which will be opened on the same day in the office of under-signed at **3:00 PM** in presence of the bidders who wish to be present.

Bidders are advised to inspect the site/machines before quoting their rates. Bidders are also advised to go through the Special Instructions attached to this notice. (Placed at Attachment A).

BHEL reserves the right to reject any or all of the tenders without assigning any reason thereto.

Tender No. & Date	Description of Work	Earnest Money	Period of Contract	Tender Cost (Rs.)
CFFP/M&S/RMS/2K16/AMC/01/NIT Dated: January 12, 2016	Annual Maintenance Contract for the machines in Machine Shop & QM Work Shop	Two Lacs Only	Two Years	2000/-



(Narendra Kumar)  
DGM/M&S  
CFFPP, BHEL  
Ranipur, Haridwar-249403  
(Uttarakhand)

Copy To. : DGM (Works): for deputing finance representative for tender opening.

**BHARAT HEAVY ELECTRICALS LTD.**  
**CENTRAL FOUNDRY FORGE PLANT**  
RANIPUR, HARDWAR  
MAINTENANCE & SERVICES DEPARTMENT  
**MAINTENANCE-MACHINE SHOP**

ATTACHMENT A

NO. : CFFP/M&S/RMS/2K16/AMC/01/NIT

Date: January 11, 2016

**SPECIAL INSTRUCTIONS**

1. Kindly read this set of Special Instructions carefully before filling up the tender form.
2. **Pre Qualification Requirements placed at Annexure F must be fulfilled by the vendor to participate in the tender and submitted along with Techno-Commercial Bid.**
3. The bidders are to submit the tender form along with following Annexure- A1, A3, B, C, D, F & G as well as this set of Special Instructions (Attachment A); **all pages duly signed with clause wise confirmation/acceptance & stamped.**
  - a. Location wise List of Machines, Equipment & installation in Machine Shop & QM work shop (Annexure-A1)
  - b. List of Machines/ Equipment & location in QM Building (Annexure-A3)
  - c. Manpower Deployment, Extent & Scope of Work and Scope of supply of Material (Annexure-B)
  - d. Special Terms and Conditions (Annexure-C)
  - e. Payment Terms (Annexure-D)
  - f. Qualification Criteria (Annexure-F)
  - g. Business Rules For Reverse Auction (Annexure-G)
4. The tender is to be submitted in two parts, viz.: i) Techno Commercial Bid and ii) Price Bid.
5. Both the Techno Commercial Bid and Price Bid are to be sealed separately in separate envelopes super-scribed with "Techno Commercial Bid for Tender no. : CFFP/M&S/RMS/2K16/AMC/01/NIT" and "Price Bid for Tender no. : CFFP/M&S/RMS/2K16/AMC/01/NIT" respectively and then placed in a common envelope super-scribed with "Tender for Tender No.: CFFP/M&S/RMS/2K16/AMC/01/NIT". The Techno Commercial Bid must also contain an unpriced copy of Price Bid.
6. Only the Techno Commercial bid will be opened on the day of tender opening. The Priced Bid will be opened only if Techno Commercial Bid(s) are found Technically Suitable & Acceptable. Date of opening of Price Bid or Reverse Auctioning will be intimated to all technically suitable and acceptable bidders at a suitable time.
7. **It is strongly recommended to all potential bidders to visit the site and the machine under consideration. Any presumption by the bidders in this regard will not be entertained after opening of the tender.**
8. No accommodation facilities will be provided by BHEL to any of the staff of the contractors.
9. Apart from the "Special Terms & Conditions", placed at Annexure-C, the contractor will have to comply with other Terms & Conditions including "General Terms & Conditions" & "Safety Norms", BHEL's Works Policy as modified from time to time and Government rules.
10. Once Price Bids are opened and accepted by BHEL, the same cannot be withdrawn by the bidder for whatsoever reasons. In case a bidder withdraws his/her/their tender, suitable action may be taken by BHEL as deemed fit. This may include black listing of bidder or legal action.
11. If there is a difference found in the figures & words of the offered price. The price given in the words will be considered.



**(Issuing Officer)**

**BHARAT HEAVY ELECTRICALS LTD.**  
**CENTRAL FOUNDRY FORGE PLANT**  
**RANIPUR, HARDWAR**  
 MAINTENANCE & SERVICES DEPARTMENT  
 MAINTENANCE-MACHINE SHOP

TENDER FORM FOR “ANNUAL MAINTENANCE CONTRACT”

**(PRICE BID)**

**PRICED/UNPRICED**

(PRICED PRICE BID TO BE SEALED IN SEPARATE ENVELOP)

Name & Address of Bidder	:	
Tender Notice No.	:	CFFP/M&S/RMS/2K16/AMC/01/NIT Dated: January 11, 2016
Last Date & Time for receipt of Tender	:	14:30 hrs on 10/02/2016
Date & Time for opening of Tenders	:	15:00 hrs on 10/02/2016
Place for opening of Tenders	:	Office of DGM (M&S)
Nature of Contract	:	Annual Maintenance Contract
Period of Contract	:	Two Years

Description of Work

Name of Work	Period of Contract	Cost of Work for One Year Excluding Taxes (To be quoted by the Contractor)		Cost of Work for Two Years Excluding Taxes (To be quoted by the Contractor)	
		Figure	Words	Figure	Words
Annual Maintenance Contract for the machines in Machine Shop & QM Work Shop	Two Years				

Encl:

- a. Location wise List of Machines, Equipment & installation in Machine Shop & QM work shop (Annexure-A1)
  - b. List of Machines/ Equipment & location in QM Building (Annexure-A3)
  - c. Manpower Deployment, Extent & Scope of Work and Scope of supply of Material (Annexure-B)
  - d. Special Terms and Conditions (Annexure-C)
  - e. Payment Terms (Annexure-D)
  - f. Qualification Criteria (Annexure-F)
  - g. Business Rules For Reverse Auction (Annexure-G)
- Any Other (By Bidder):



Signature of Issuing Officer

Signature of Bidder/Tenderer

**Declaration by Bidder**

I/We hereby confirm that I/we have carefully read and understood Attachment-A to the Tender Notice and Annexures-A1, A3, B, C, D, F & G respectively and have complied/will comply with the same.

Signature of Bidder/Tenderer



(Accounts Officer)

(Opening Officer)

(Issuing Officer)

**LOCATION WISE LIST OF MACHINES, EQUIPMENTS &  
INSTALLATIONS IN  
MACHINE SHOP AND QM WORKSHOP**

Sl. No.	Name of Machine	Location	GROUP	WEIGHT	NORMAL WORKING HOURS	EXTENDED WORKING HOURS
A.	PRIMARY HORIZONTAL BORERS					
01.	Horizontal Borer 220-A	C-16	A	93	07:00-00:30	00:30-06:00
02.	Horizontal Borer 220C	D-11	A	93	07:00-00:30	00:30-06:00
03.	Horizontal Borer 220B	D-14	A	93	07:00-00:30	00:30-06:00
04.	Horizontal Borer WD-200	C-12	A	86	07:00-00:30	00:30-06:00
05.	Horizontal Borer-200	E-20	O	90	07:00-00:30	00:30-06:00
06.	Horizontal Borer WD-160	B-16	A	87	07:00-00:30	00:30-06:00
				542		
B.	SECONDARY HORIZONTAL BORERS					
07.	Horizontal Borer 1-30	D-11	B	69	07:00-00:30	00:30-06:00
				69		
C.	DEEP HOLE BORING MACHINES					
08.	DHB-1	A-11	C	78	07:00-00:30	00:30-06:00
09.	DHB-2	D-20	O	90	07:00-00:30	00:30-06:00
				168		
D.	PLANO MILLERS					
09.	Plano Miller-A	C-4	D	96	07:00-00:30	00:30-06:00
10.	Plano Miller-B	C-14	O	41	07:00-00:30	00:30-06:00
				137		
E.	LARGE VERTICAL BORERS					
10.	Vertical Borer VTB-6.3	E-11	E	93	07:00-00:30	00:30-06:00
11.	Vertical Borer VTB-7.1	E-15	E	93	07:00-00:30	00:30-06:00
12.	VTB-1540A	C-7	E	86	07:00-00:30	00:30-06:00
13.	Vertical Borer VTB-1540B	E-13	E	83	07:00-00:30	00:30-06:00
				355		
F.	MEDIUM & SMALL VERTICAL BORERS					
14.	Vertical Borer 2.5A	B-8	F	61	07:00-00:30	00:30-06:00
15.	Vertical Borer 2.5B	B-8	F	61	07:00-00:30	00:30-06:00
16.	Vertical Borer 2.5C	D-8	F	69	07:00-00:30	00:30-06:00
17.	Vertical Borer 2.5D	D-6	F	69	07:00-00:30	00:30-06:00
18.	Vertical Borer 2.1	B-11	F	44	07:00-00:30	00:30-06:00
19.	Vertical Borer 1.5	B-12	F	26	07:00-00:30	00:30-06:00
				330		
G.	LARGE LATHES					
20.	Lathe - 10m (FR-100)	A-7	G	78	07:00-00:30	00:30-06:00
21.	Lathe 8m (SR-2000B)	A-16	G	78	07:00-00:30	00:30-06:00
22.	Lathe 8m (SR-2000A)	B-9	G	78	07:00-00:30	00:30-06:00
23.	Lathe 8m (SRM-2000)	D-7	G	78	07:00-00:30	00:30-06:00

**LOCATION WISE LIST OF MACHINES, EQUIPMENTS &  
INSTALLATIONS IN  
MACHINE SHOP AND QM WORKSHOP**

Sl. No.	Name of Machine	Location	GROUP	WEIGHT	NORMAL WORKING HOURS	EXTENDED WORKING HOURS
24.	Lathe 14m (Beco)	E-7	G	90	07:00-00:30	00:30-06:00
25.	Lathe - 7m	A-3	G	65	07:00-00:30	00:30-06:00
				467		
H.	MEDIUM & SMALL LATHES					
26.	Lathe - 6m-C (1-46)	C-5	H	50	07:00-00:30	00:30-06:00
27.	Lathe - 6m A	B-12	H	40	07:00-00:30	00:30-06:00
28.	Lathe - 5m A	B-13	H	40	07:00-00:30	00:30-06:00
29.	Lathe - 6m B	B-6	H	40	07:00-00:30	00:30-06:00
30.	Lathe - 5m B	C-7	H	40	07:00-00:30	00:30-06:00
31.	Lathe - 4.5m	C-8	H	37	07:00-00:30	00:30-06:00
				247		
I.	FURNACE					
32.	Thermal Stability Furnace	E-17	I	51	07:00-00:30	00:30-06:00
				51		
J.	AUXILARY MACHINES					
33.	Facing & Centring Machine	B-7	J	65	07:00-00:30	00:30-06:00
34.	Circular Saw	A-5	J	58	07:00-00:30	00:30-06:00
35.	Band Saw-A	E-4	J	68	07:00-00:30	00:30-06:00
36.	Band Saw-B	D-5	J	51	07:00-00:30	00:30-06:00
37.	Drill Machine RM-60	B-13	J	19	07:00-00:30	00:30-06:00
38.	Self Aligning Rotator	B-4	J	37	07:00-00:30	00:30-06:00
39.	MP Testing Machine-1	B-3	J	61	07:00-00:30	00:30-06:00
40.	MP Testing Machine-2	B-4	J	61	07:00-00:30	00:30-06:00
41.	Transfer Trolley-1	D-17	J	33	07:00-00:30	00:30-06:00
42.	Transfer Trolley-2	E-2	J	33	07:00-00:30	00:30-06:00
				486		
K.	ELECTRICAL INSTALLATIONS					
43.	Substation-West	Western End, Bay-1	K	75	07:00-00:30	00:30-06:00
44.	Substation-East	Eastern End, Bay-2	K	75	07:00-00:30	00:30-06:00
45.	Substation-North	North of Shop	K	75	07:00-00:30	00:30-06:00
46.	Power Distribution Board-1	A-10	K	54	07:00-00:30	00:30-06:00
47.	Power Distribution Board-2	B-9	K	54	07:00-00:30	00:30-06:00
48.	Power Distribution Board-3	B-12	K	54	07:00-00:30	00:30-06:00
49.	Power Distribution Board-4	B-16	K	54	07:00-00:30	00:30-06:00
50.	Power Distribution Board-8	C-6	K	54	07:00-00:30	00:30-06:00
51.	Power Distribution Board-5	C-9	K	54	07:00-00:30	00:30-06:00
52.	Power Distribution Board-6	C-14	K	54	07:00-00:30	00:30-06:00
53.	Power Distribution Board-7	C-16	K	54	07:00-00:30	00:30-06:00
54.	Power Distribution Board-9	D-14	K	54	07:00-00:30	00:30-06:00
55.	Power Distribution Board-10	E-15	K	54	07:00-00:30	00:30-06:00

**LOCATION WISE LIST OF MACHINES, EQUIPMENTS &  
INSTALLATIONS IN  
MACHINE SHOP AND QM WORKSHOP**

Sl. No.	Name of Machine	Location	GROUP	WEIGHT	NORMAL WORKING HOURS	EXTENDED WORKING HOURS
56.	Power Distribution Board-11	E-17	K	54	07:00-00:30	00:30-06:00
57.	Power Distribution Board-12	E-22	K	51	07:00-00:30	00:30-06:00
				870		
L.	AUXILARY MACHINE TOOLS					
58.	Saw Sharpening Machine	A-14	L	19	07:00-00:30	00:30-06:00
59.	Pedestal Grinder-1	A-14	L	12	07:00-00:30	00:30-06:00
60.	Pedestal Grinder-2	B-13	L	12	07:00-00:30	00:30-06:00
61.	Pedestal Grinder-3	D-14	L	12	07:00-00:30	00:30-06:00
62.	Pedestal Grinder-4	E-8	L	12	07:00-00:30	00:30-06:00
63.	Pedestal Grinder-5	A-7	L	12	07:00-00:30	00:30-06:00
64.	Pedestal Grinder-6	B-6	L	12	07:00-00:30	00:30-06:00
65.	Lathe LB-20G	D-15	L	37	07:00-16:00	16:00-12:30
66.	Lathe LB-20	D-15	L	37	07:00-16:00	16:00-12:30
67.	Lathe H-26	D-15	L	37	07:00-16:00	16:00-12:30
68.	Russian Lathe	D-16	L	37	07:00-16:00	16:00-12:30
69.	Tool Cutter-1	C-16	L	23	07:00-16:00	16:00-12:30
70.	Tool Cutter-2	C-16	L	23	07:00-16:00	16:00-12:30
71.	Milling Machine-1	C-16	L	34	07:00-16:00	16:00-12:30
72.	Milling Machine-2	C-16	O	34	07:00-16:00	16:00-12:30
73.	Cylindrical Grinder	C-16	L	23	07:00-16:00	16:00-12:30
74.	Power Hacksaw	D-14	L	40	07:00-16:00	16:00-12:30
				416		
M.	ILLUMINATION & OTHERS					
75.	Shop Illumination System and others*	BAY-1	M	68	07:00-07:00	-NA-
76.	Shop Illumination System and others*	BAY-2	M	68	07:00-07:00	-NA-
77.	Shop Illumination System and others*	BAY-3	M	68	07:00-07:00	-NA-
78.	Shop Illumination System and others*	BAY-4	M	68	07:00-07:00	-NA-
79.	Illumination System and others*	ANNEXE	M	51	07:00-07:00	-NA-
				323		
N.	QM Workshop & Labs					
80.	Power Hexa Machine no.01	QM Workshop	N	40	07:00-16:00	16:00-12:30
81.	Power Hexa Machine no.02	QM Workshop	N	40	07:00-16:00	16:00-12:30
82.	Power Hexa Machine no.03	QM Workshop	N	40	07:00-16:00	16:00-12:30
83.	Lathe Machine (LB 17)	QM Workshop	N	37	07:00-16:00	16:00-12:30
84.	Lathe Machine (LB 20)	QM Workshop	N	37	07:00-16:00	16:00-12:30
85.	Milling Machine (HMT)	QM Workshop	N	34	07:00-16:00	16:00-12:30
86.	Milling Machine (BATLIBOI FN2)	QM Workshop	N	34	07:00-16:00	16:00-12:30
87.	Rest 44 very small machines/equip. in QM	QM Building	N	233	07:00-16:00	16:00-12:30
				495		
			Total	4956		
O.	Expected Additional Machines					
88.	Horizontal Borer BH-130	C-10	O	44	07:00-00:30	00:30-06:00
				44		

**LOCATION WISE LIST OF MACHINES, EQUIPMENTS &  
INSTALLATIONS IN  
MACHINE SHOP AND QM WORKSHOP**

Sl. No.	Name of Machine	Location	GROUP	WEIGH TAGE	NORMAL WORKING HOURS	EXTENDED WORKING HOURS
------------	-----------------	----------	-------	---------------	----------------------------	------------------------------

Shop Illumination System and others include all shop lightings and fans within Machine Shop, its Annexe and other buildings associated with shop, Man Coolers, Heaters, etc. irrespective of their location.

Small machine cluster at QM Workshop includes all lightings and fans within QM Workshop, its Annexe and other buildings associated with shop, Man Coolers, Heaters, etc. irrespective of their location.

The weightage of machine group is based on weightage of included machines in the group. Weightage of machines themselves is based on size, complexity and criticality of machines. Machines of similar nature have been included in same group except machines and other utilities of QM Workshop and other utilities of Machine Shop which. The group weightage is to be considered only for penalty purpose as detailed under 'Payment Terms' in Annexure-'D'.

Machines under 'O' Group is not under operation. These machines is to be Overhauled and may be added in the course of AMC. Initially total weightage for deduction of payment will be 4956. If any machine from Group 'O' is added, New total weightage for deduction of payment will be 4956 + weightage of the respective Mechanism for deduction of payment to account for inferior performance has been built in the 'Payment

**LIST OF MACHINES/EQUIPMENTS & LOCATION IN QM BUILDING**

SI. No.	MACHINE/EQUIPMENTS	NORMAL WORKING HOURS	EXTENDED WORKING HOURS	LOCATION	Name of Lab.	LOCATION ABB.
1	Tensile Machine (ZD-40)	07:00-00:30		ML	Mechanical Lab.	ML
2	Tensile Machine (UTES-20)	07:00-00:30		ML	Mechanical Workshop	MW
3	Impact Machine (IT-30)	07:00-00:30		ML	Heat Treatment Lab	HT
4	Impact Machine (IT-30)	07:00-00:30		ML	Chemical lab	CL
5	HRC Machine (EHR-AC)	07:00-00:30		ML	Metallography Lab	MET
6	BHN Machine (HPO-3000)	07:00-00:30		ML	Raw Material Inspection	RMI
7	BHN Machine (HPO-250)	07:00-00:30		ML	Creep Lab	CR
8	BHN Machine (B-3000)	07:00-00:30		ML		
9	Profile projector 1	07:00-00:30		ML		
10	Profile projector 2	07:00-00:30		ML		
11	Drop Test Machine	07:00-00:30		ML		
12	Bend Testing machine	07:00-00:30		ML		
13	Belt Grinding Machine	07:00-00:30		MW		
14	Disc Cutting Machine (UNIMAT)	07:00-00:30		MW		
15	"U" Notch Broaching Machine	07:00-00:30		MW		
16	"V" Notch Broaching Machine	07:00-00:30		MW		
17	Surface Grinding (Horizontal)	07:00-00:30		MW		
18	Power Hexa Machine no.01	07:00-00:30		MW		
19	Power Hexa Machine no.02	07:00-00:30		MW		
20	Power Hexa Machine no.03	07:00-00:30		MW		
21	Lathe Machine (LB 17)	07:00-00:30		MW		
22	Lathe Machine (LB 20)	07:00-00:30		MW		
23	Milling Machine (HMT)	07:00-00:30		MW		
24	Milling Machine (BATLIBOI FN2)	07:00-00:30		MW		
25	Pedestal Grinder	07:00-00:30		MW		
26	Bsmd Saw	07:00-00:30		MW		
27	Muffle Furnace No.1	07:00-16:00	16:00-00:30	CL		
28	Muffle Furnace No.2	07:00-16:00	16:00-00:30	CL		
29	Muffle Furnace No.3	07:00-16:00	16:00-00:30	CL		
30	Oven No.1	07:00-16:00	16:00-00:30	CL		
31	Oven No.2	07:00-16:00	16:00-00:30	CL		
32	Oven no 3	07:00-16:00	16:00-00:30	CL		
33	Hot Plates No.1	07:00-16:00	16:00-00:30	CL		
34	Hot Plates No.2	07:00-16:00	16:00-00:30	CL		
35	Hot Plates No.3	07:00-16:00	16:00-00:30	CL		
36	Hot Plates No.4	07:00-16:00	16:00-00:30	CL		
37	Hot waterbath equipment	07:00-16:00	16:00-00:30	CL		
38	Polishing & Grinding Machine No.1	07:00-16:00		MET		
39	Polishing & Grinding Machine No.2	07:00-16:00		MET		
40	Polishing & Grinding Machine No.3	07:00-16:00		MET		
41	Electric Furnace No.1	07:00-16:00	16:00-00:30	HT		
42	Electric Furnace No.2	07:00-16:00	16:00-00:30	HT		
43	Tubular Muffle Furnace	07:00-16:00	16:00-00:30	HT		
44	Creep Testing Machine No.1	07:00-00:30	00:30-07:00	CR		
45	Creep Testing Machine No.2	07:00-00:30	00:30-07:00	CR		
46	Creep Testing Machine No.3	07:00-00:30	00:30-07:00	CR		
47	Creep Testing Machine No.4	07:00-00:30	00:30-07:00	CR		
48	Creep Testing Machine No.5	07:00-00:30	00:30-07:00	CR		
49	Creep Testing Machine No.6	07:00-00:30	00:30-07:00	CR		
50	Sample Grinding machine 1	07:00-16:00		RMI		
51	Sample Grinding machine 2	07:00-16:00		RMI		

**MANPOWER DEPLOYMENT, EXTENT & SCOPE OF WORK AND,  
SCOPE OF SUPPLY OF MATERIAL**

**A. MANPOWER DEPLOYMENT:** The main responsibility of the contractor will be smooth operation of the machines and allied tools & auxiliaries under consideration. For this, the contractor will deploy adequate no. of persons with adequate knowledge and experience. The desirable manpower and their minimum qualification criteria required to be deployed by the contractor at the site are as listed below:

1. **Site In-Charge:** The site in-charge will primarily be responsible for all the works as mentioned in the extent and scope of work and will be the nodal agency from contractors' side for all the communication. He must be well qualified and experienced in handling maintenance and retrofitting/reconditioning of similar machines. The site in-charge must be a degree holder with a minimum 10 years' experience in maintaining/installing/retrofitting/reconditioning of such machines. The site in-charge must be easily available to the maintenance and production departments on 7X24, single call basis. During his/her absence from site, he/she will nominate another person of at the most one rank below with prior intimation to the maintenance department. The contractor will mandatorily provide a mobile cellular phone to the site in-charge for ease of contact.
2. **Shift Supervisors:** There will be minimum four supervisors of which at least two must be from Mechanical side, one from Electrical side. Fourth supervisor must be from Electronics. The shift supervisors will basically act as team leaders for the workforce deployed on any work. The supervisors must be well qualified and experienced. The minimum qualification for Shift Supervisors will be Diploma (in respective engineering) with minimum 2 years' experience or ITI (in respective discipline) with minimum 5years experience in maintenance/reconditioning/retrofitting of similar machines. (Please also refer A.1 above). The Supervisor for Electronics Maintenance must necessarily be minimum diploma holder.
3. **Fitters:** There will be minimum four fitters deployed in 'A' shift and minimum two fitters in B shift each having a qualification of ITI and an experience of minimum 3years in mechanical maintenance of such machines.
4. **Electricians:** There will be minimum two electricians deployed in 'A' shift and minimum two electricians in B shift each having a qualification of ITI and an experience of minimum 3years in electrical/electronic maintenance of similar machines.

5. **Helpers:** Contractor will deploy adequate number of helpers (Min. six nos. in 'A' shift and four nos. in 'B' Shift) for assisting the above staff. However, according to requirement in place of 10 helpers contractor may depute 8 Fitters/Electricians.
6. **Others:** The contractor may employ at their discretion additional staff for other works including office & minor welding repair work. The contractor may also employ temporary staff under certain special circumstances. However, the overall responsibility of all the persons including regular and temporary workforce, the supervisors and the site in-charge will be that of the contractor.
7. The overall team must be experienced in Maintenance/Reconditioning/Retrofitting of such machines including Lathes, Vertical Boring Machines, Horizontal Boring Machines and other machine tools, LT Electrical Panels, High-Bay Luminaries etc. The team must also be capable of handling maintenance activities w.r.t. PLC, Drives and CNC based systems. If contractor wishes to depute any person having lesser qualification as mentioned above but technically sound for the work, it may be allowed only after getting prior approval from the executive in charge.

The deployment of workforce will be in two shifts on regular basis and in the third shift & Sundays/Holidays as per the requirement of the work. Contractor will be allowed to detain the workforce working in 'A' or 'B'-Shift for working in period beyond the normal hours subject to the condition that workmen will be allowed to work for not more than 20Hrs at a stretch in normal conditions and not more than 24Hrs at a stretch in the condition of emergencies, determination of which shall be from the competent authority of BHEL.

**B. EXTENT AND SCOPE OF WORK:** The Extent and Scope for the work of Annual Maintenance of machines in Machine Shop, QM Workshop and Allied Areas is as detailed below:

1. **Running Breakdown Maintenance:** Running Breakdown Maintenance of the machines under consideration (Refer Annexure-A, List of Machines for Annual Maintenance Contract) will generally refer to attending all types of breakdowns of the machines under consideration irrespective of the cause of the breakdown. The breakdown maintenance will normally be carried out during A and B Shifts. However, if any machine is operated beyond B shift, the contractor will maintain a team comprising of sufficient members of adequate caliber to handle breakdowns during this period also. The tentative period of operation of the machines beyond 'B' Shift is indicated in Annexure-'A', List

of Machines for Annual Maintenance Contract The procedure for this activity will be as detailed below-

- 1.1. For this activity, all breakdowns will be referred to the site in charge of the contractor by maintenance department. This will be done on the standard Breakdown. The contractor's site in charge will deploy his team member(s) for resolving the breakdown in shortest possible time.
  - 1.2. The contractor will give a spare/machining requisition slip to maintenance department & will retain one signed copy from maintenance department. All the spare parts /consumables/machining for this purpose will be provided by the maintenance department as per requirement. However, any weld rectification of any broken part, where the contractor's site in charge independently or jointly with the maintenance department decide that the broken part can be weld repaired, shall be done by the contractor. Welding machine, electrodes & required accessories/ shall be provided by BHEL.
  - 1.3. After resolving the breakdown a trial run of the affected sub-system and/or the whole machine, to the satisfaction of the production department, will be performed and the machine will be handed over to the production department for normal production activities. Intimation of handing over the machine along with breakdown time and handing over time will be conveyed to the maintenance department.
  - 1.4. The site in charge of the contractor shall prepare a report of all the breakdowns in the online system as per the standard breakdown reporting system and will also maintain a detailed report of all the activities of the breakdown maintenance including the details and nature of breakdown, activities performed for resolution of breakdown, spares used, breakdown time, handing over time, suggestions/recommendations for avoiding similar breakdown etc.
2. **Preventive Maintenance:** The contractor will take up all the machines under consideration for General Preventive Maintenance at regular intervals. Normally, each machine will be taken up for the work of preventive maintenance on half yearly basis and as per the "Schedule of Preventive Maintenance". The procedure for this activity will be as detailed below-
- 2.1. For this activity, a detailed Schedule of Preventive Maintenance will be issued by the maintenance department within a month of start of the works contract.
  - 2.2. The preventive maintenance will be taken up following the "Schedule of Preventive Maintenance". However, contractor will intimate the production department every month for the machines to be covered in preventive maintenance. Preventive Maintenance will be carried out as per availability schedule provided by the production department.

- 2.3. On the scheduled date, the machine will be handed over to the contractor for the period as mentioned in the schedule.
- 2.4. The contractor will deploy its appropriate workforce for the work who will do the preventive maintenance work as per the guide lines specified in the “Schedule of Preventive Maintenance”.
- 2.5. The preventive maintenance work will in general include cleaning, lubrication, tightening of joints and fasteners, tightening of electrical connections and joints, cleaning of panels and control desks, checking of various parameters and checking of performance of machine etc.
- 2.6. Any deficiencies observed in the machine during the Preventive Maintenance shall be intimated to the maintenance department immediately and a corrective action shall be initiated. Depending upon the severity of the deficiency, the machine may be taken up further for corrective maintenance or planned for minor overhauling.
- 2.7. An execution report on standard format for the preventive maintenance work will be submitted by the contractor to the maintenance department. A proper and detailed record of the activities performed observations and suggested corrective/preventive measures will also be maintained by the contractor.
3. **Minor Overhaul:** Some machines may undergo minor overhaul during the contract period where minor overhauling will cover overhauling of Tail Stock, Carriage or Head Stock in Lathes, Overhauling of speed gear box of Table, left head/saddle gear box or Right head/saddle gear box in VTBs, Overhauling of Head Stock or Column Gear box in HBMs, Overhauling of Head or table Gear Box in Milling Machines or overhauling of complete lubrication system of any machine or replacement of box nut or lead screw or both of any of the machine. The machines to be taken up for this activity shall be decided jointly by the Maintenance Department, the Production Department and the Contractor, based on the observations and findings during the scheduled preventive maintenance.
  - 3.1. Based on information gathered during preventive and breakdown maintenance and general observation of the machine, a minor overhaul of the machine will be planned well ahead in time (at least four weeks before the actual execution). This will also include planning of all the activities required to be performed during the overhauling.
  - 3.2. A detailed list of all the spares and consumables required will be handed over by the contractor to the maintenance department.
  - 3.3. On the scheduled date, the machine will be handed over to the contractor for the overhauling work who will deploy its appropriate workforce for the work of overhauling. All the required

- spares and consumables will be supplied by the maintenance department free of cost. Minor welding/weld repair work will be carried out by the contractor.
- 3.4. The contractor will ensure that all the activities as planned and as required are carried out to the satisfaction of the Production and Maintenance Departments.
  - 3.5. After the completion of overhauling, a trial run will be performed jointly by the maintenance department, the production department and the contractor. The job of overhauling will be deemed complete only after successful trial run.
  - 3.6. A detailed report detailing all the activities performed and listing down the spares consumed will be prepared by the contractor and submitted to the maintenance department.
4. **Shifting of Spares and Consumables:** All the spares and consumables required for resolution of breakdowns, preventive maintenance, minor overhauls etc. will be provided by BHEL to the contractor, free of cost. However, shifting of the same from Central Plant Store, other Shop Sub-Stores, HEEP or Local Market to the Maintenance-Machine Shop Sub-Store and Maintenance-Machine Shop Sub-Store to the site of requirement will be responsibility of the contractor. For this, the procedure will be as detailed below:
- 4.1. At the commencement of the contract, the contractor will study all the machines under consideration and submit a list of spares and consumables required for maintenance of the machines for the period of contract based on which, the maintenance department will arrange the material. A similar list will also be prepared in the intermittent period which shall be reviewed jointly by the contractor and the maintenance department.
  - 4.2. At the time of maintenance work, whether breakdown maintenance, preventive maintenance, minor overhaul, the contractor will raise a requisition note for all the required spares and consumables and get it approved by the maintenance department.
  - 4.3. The approved requisition note will then be put to the storekeeper of the M/c Shop Maintenance Sub-Store who will issue the material to the contractor directly or through regular maintenance staff. Shifting of all the material from sub-store to the site will be done by the contractor.
  - 4.4. In case a spare is not available in the Shop Sub-Store, Maintenance Department will process the need as per the existing practice and the contractor will deploy the required manpower for shifting of the material from Central Store/other Shop Sub-Stores/HEEP/local market to the Maintenance-Machine Shop Sub-Store. After which the material will be issued to the contractor as mentioned above.

- 4.5. A detailed list of spares and consumables consumed during each day will be prepared by the contractor on the next day. In the third week of every month, the Contractor will also assist the maintenance department in preparing a separate list of material required but not available/available in less quantum in the sub-store and submit the same to the maintenance department which will be taken up by the maintenance department for procurement action.
- 4.6. For shifting for machine/weld rectification of damaged spares, the contractor will deploy adequate manpower under the supervision of Maintenance Department.
5. **Maintenance of Sub stores:** The contractor will deploy adequate manpower twice in a year under the supervision of Maintenance Department to perform 5S for cleaning & arrangement of sub stores.
6. **Maintenance of Records:** The contractor will maintain various records as listed below. All the records will be property of BHEL. Contractor may keep a separate record of activities for its own use.
- 6.1. **Breakdown Report:** A brief report of all the breakdowns will be generated by on line break down system. Running breakdowns of each day will be reported on line break down system. All the running breakdowns will be given by production department by on line break down system. All the running break down handed over by maintenance department by on line break down system.. All the facts including action taken for resolution of breakdown, spares consumed, total breakdown hours will be recorded by on line break down system.
- 6.2. **Preventive Maintenance Records:** An execution report will be initiated by the contractor in prescribed format. This will be verified and accepted jointly by Maintenance Department & Production Department. All the activities performed during preventive maintenance on each day will also be recorded in detail in online break down system. At the end of the year or at the direction of the Maintenance Department, a concise execution summary record will also be prepared for all the Preventive Maintenance Executions. This also will be in the prescribed format in triplicate. Formats for both the Execution Report and the Execution Summary record will be supplied to the contractor by BHEL free of cost.
- 6.3. **Minor Overhaul Report:** At the end of each of minor overhauls a detailed report (in triplicate) will be generated by the contractor and approved by the maintenance department. All the activities performed will also be recorded. The stationary for this report will be arranged by the contractor themselves.
- 6.4. **Other Report:** This document will be in the form of General Daily Diary and will contain the details of all the activities as detailed in para 6.1 to 6.3 above and also reports of all other events including accidents, fire, safety failures etc. on daily basis. This will basically form the daily work

record and will be basis of verification of all other reports and records. The stationary for this will be arranged by the contractor themselves.

- 6.5. **Machine History:** The Contractor will keep record of each machine separately including events of breakdowns, preventive maintenance, spares consumed, modifications made and drawings created. However, no drawings and only reference to the drawings will form part of this document. All the drawings will be property of BHEL and the contractor will not be allowed to part the drawings to any agency/person in a manner against the interests of BHEL.
- 6.6. **Material Consumption Record:** The contractor will, at the end of each week, create a material consumption report to help forecast material requirements. Such reports will also be created at the end of each quarter.

**C. SCOPE OF MATERIAL:** The scope of material will be as detailed below:

1. **Spares and Consumables:** All the spares and consumables required for maintenance work will be supplied by BHEL free of cost. Shifting of all such material from stores to the site of requirement will be done by the contractor.
2. **Stationary:** All the stationary items excluding standard formats will have to be arranged by the contractor. All the standard formats as per requirement will be supplied to the contractor free of cost.
3. **Instruments and Tools & Tackles:** The contractor will arrange all the general tools and instruments required for maintenance work. All the special tool will be provided by BHEL to the contractor on not chargeable but returnable basis
4. **Safety Accessories and Appliances:** All the items required for the safety of the working staff will have to be provided by the contractor.
5. **Office Accessories:** All the items required as office accessories including Computer, Mobile Phones etc. will have to be arranged by the contractor.

## **SPECIAL TERMS & CONDITIONS**

The bidder has to follow following special terms and conditions in addition to the general terms and conditions as per BHEL's works contract policies as amended from time to time. In general, where there is a conflict between the BHEL's general terms and conditions, and the special terms and conditions mentioned herein, the special terms and conditions will supersede the general T&C. All the safety conditions as per BHEL's Safety Terms and Conditions are also to be observed and adhered to. The special terms and conditions are as mentioned below:

1. In all the text below, the phrase 'Executive In-Charge' or 'Executive In-Charge of Maintenance-Machine Shop' will mean Executive In-Charge of Maintenance-Machine Shop or any of his designated executive.
2. The contract will initially be for a period as mentioned in the tender notice and tender form. This period shall be called 'Contract Period'.
3. If required, the contract can be extended on same rates and 'Terms and Conditions' including 'Special Terms and Conditions' by mutual agreement as per BHEL works policy.
4. Irrespective of the state of operation of the machine, the contractor will deploy its team in the Machine Shop also on all Sundays and Holidays except National Holidays unless otherwise directed by the Executive In-Charge. During such days where operation of machines is not taken up by the Production department, the team will take up breakdown maintenance from previous days or preventive maintenance as per schedule or as per the instructions of the Executive In-Charge.
5. Normally no person is to be deployed during National Holidays (Dt. Jan 26 & Aug 15) however, in case of emergencies or special circumstances or decision of running production activities by Machine Shop Production, the contractors' team may be called for any work including support for production department or for breakdown maintenance work. No additional payment shall be made to the contractor for this. On holidays and Sundays, the normal working hours will extend from 07:00Hrs to 20:00Hrs IST.
6. The performance of the work will continuously be monitored by maintenance department. A poor performance/loss or damage of BHEL asset may result into monetary penalties or even premature termination of the contract and the security deposit made by the contractor w.r.t. this contract will be forfeited. Decision of the BHEL will be final in this regard.
7. The contractor will deploy a workforce, comprising of sufficient no. of adequately qualified and experienced team members for the purpose of maintenance of the machines under consideration. The team members must satisfy the criteria as mentioned in Part-A of [Annexure-B "Manpower Deployment, Extent & Scope of Work and Scope of Supply of Material"](#). The contractor will be responsible for the conduct of all its employees.
8. Contractor will deploy its team as per 7 above, at Machine Shop. The same team will maintain the machines in both the Machine Shop and the QM Workshop.
9. The contractor will necessarily deploy minimum two people from Mechanical, one supervisor from Electrical background and one supervisor from Electronics Engineering background. The Executive or Supervisor with electronics background must necessarily be well versed and experienced in maintenance of systems with Siemens make CNC, PLC & Drives and familiar with other makes of PLCs, Drives and CNCs.
10. The contractor will have to ensure that none of their employees indulge in activities detrimental to the interests of BHEL. In case an employee of the contractor is found indulging in such activities,

contractor will immediately replace him/her by another employee. A second such incidence may result into **Immediate Negative Performance Report** leading to premature termination of the contract as per clause 6 above and/or penal/legal action.

11. The Site in-Charge of the contractor must be available to the Maintenance and Production Departments through a suitable means of communication which has to be arranged by the contractor.
12. The contractor will ensure safety of all its employees and will observe all standard safety norms. For this, the safety devices/appliances will have to be issued by the contractor and BHEL will not provide any safety devices/appliances.
13. The payment of the work will be made on monthly basis based on performance report generated by the maintenance and/or production department. Refer Annexure-D, Payment Scheme for details.
14. All the direct consumables and spares for maintenance of machines will be supplied to the contractor by BHEL, free of cost. This however does not include stationary items other than standard formats of BHEL. The standard formats will be supplied free of cost.
15. All types of maintenance work of machines under consideration including breakdown & preventive maintenance and minor overhauls whether electrical, mechanical or electronic will be under the scope of contract and will be part of work to be carried out by the contractor. This however does not include any machining work of any component including machining of weld repaired components. All the minor welding work required for maintenance will be under the scope of contractor's work. The machining of all types of components will be arranged by BHEL. The scope of the welding will jointly be decided by the Executive In-Charge and the Site In-Charge of the contractor on case to case basis.
16. All the tools and tackles including hand tools and instruments will have to be arranged by the contractor. No tools, tackles or instruments will be supplied by BHEL except special tools, specific to a particular machine, Welding Machines and EOT Cranes.
17. In general, various drawings of the machine tools, their assemblies, sub-assemblies, circuit diagrams and panel wiring diagrams etc. will be supplied by BHEL to the extent possible and subject to availability. Non availability of any drawing or diagram will however not be considered as attributable factor for delay in any maintenance work.
18. Completion time for repair, maintenance work etc. shall be decided jointly by Executive In-Charge of Maintenance-Machine Shop and the Site In-Charge of the Contractor. All efforts are to be made to complete the work within the estimated time.
19. Any lapse in attending any maintenance work shall be treated as non compliance from contractor's side and a penalty may be imposed in the form of reduction of % availability of machine.
20. Any machine(s) added in Machine Shop and/or QM Workshop in future (during the contract period) will have to be maintained by the contractor (during the contract period) without any change in the contract value, irrespective of the nature and size of the machine. In such cases, suitable weightage, same as the most closely related existing machine, will be assigned to the new machine. (Refer Annexure-D Payment Terms and Conditions). one machines/equipment for this purpose have already been considered in the list of machines (Group 'O', Annexure-A1).
21. All the employees of the Contractor working under this contract shall be covered by the contractor under ESI and PF schemes.
22. The Contractor has to work in accordance with & abide by Labour Laws Stipulated by Government & BHEL works policy. This includes licensing by Central Govt./State Govt. as appropriate from time to time.
23. All the activities will be governed as per the instructions of the Executive In-Charge, Maintenance-Machine Shop.

24. Complete off-loading of the contract is not permitted. Off-loading will be allowed for Electricians, Fitters & Helpers category only. However it will be the full responsibility of the contractor to fulfill the statutory conditions as per BHEL policy and all the acts applicable.

**PAYMENT TERMS**

This section details the Payment Terms & Conditions.

1. **General Information:** The successful bidder, hereafter called the contractor will have to deposit Security Deposit as per BHEL works Policy.

Up to Rs.10 Lakhs : 10%

Above Rs. 10 Lakhs & up to Rs. 50 Lacks : Rs. 1 Lakh +7.5 % of the amount exceeding Rs. 10 Lakhs

Above Rs. 50 Lakhs: Rs. 4 Lakhs + 5 % of the amount exceeding Rs. 50 Lakhs

The contractor may, alternatively, deposit a sum equal to 50% of the security deposit less EMD deposited by the contractor, in which case, balance Security Deposit will be recovered from running bills at the rate of 10%. The payment & penalty will be made to the contractor in manner detailed under 2 & 3 below.

2. **Criteria for Payment:** Payment to the contractor will be done on monthly basis. Performance Report for monthly availability of machines and equipments will be prepared jointly by Maintenance Machine Shop & Machine Shop Production (for machines/equipments/installations under Machine Shop) and QM Work Shop (for machines/equipments/ installations under QM Work Shop and allied areas). Contractor will submit proof of PF & ESI submission of deputed manpower for each monthly payment. Payment for second running bill onwards will be done only after producing the proof for submission of service tax paid in the previous bill.

3. **Criteria for Penalty:** The deduction will be done on annual basis considering the % annual machine availability which will be calculated considering the monthly generated availability reports. Penalty will be deducted in the last monthly bill of the year (in 12<sup>th</sup> running bill and final bill). Machine/ machine group weightage as mentioned in Annexure A-1 will be considered for payment deduction. No deduction will be done for machine/machine groups having availability equal to or more than 92% and at reduced rates for availability between 75% & 92% (reduction on pro-rata basis). For availability <75%, amount equal to machine/ machine group weightage will be deducted. For details, refer table below:

SL. NO.	PARTICULAR		DETAILS
A.	MONTHLY PAYMENT BILL	:	Contract Value ----- Contract Period in Months
PENALTY CALCULATION FOR THE LAST BILL OF THE YEAR			
B	MACHINE/MACHINE GROUP AVAILABILITY IN A YEAR	:	Sum of Available Hrs * ----- X 100 Sum of Total Working Hrs For all machine in the group except those for which availability is less than minimum qualifying availability as per Annexure-A1 (Available Hrs taken from Breakdown Reports)
C	PENALTY FACTOR FOR MACHINE/MACHINE GROUP	:	0 if B > 92% 1 if B < 75% otherwise (92- B)/100
D	MACHINE/MACHINE GROUP WEIGHTAGE	:	AS PER ANNEXURE-A1
E	PENALTY AMOUNT FOR A MACHINE/MACHINE GROUP	:	(Annual Contract Value X Machine Weightage X Penalty Factor)/Weightage of Total Machines
F	TOTAL DEDUCTION FROM LAST MONTHLY BILL OF A YEAR	:	Sum of E for all machine & machine groups + Penalty imposed by competent authority of BHEL if any based on performance report, (Refer Special Terms & Conditions)

4. While Calculating available hours of any machine/machine group, any time taken by BHEL for arrangement of spares will be considered as available hrs. e.g. if 8hrs are consumed in arranging spares for a particular breakdown that runs over a period of 14Hrs. the net breakdown time will be considered 14-8=6Hrs. Preventive Maintenance & Minor Overhauling period will also be considered as available hours. All such incidences will be recorded properly. Total hours will include Sundays/Holidays & C Shifts if the machine is intended to be used on such days.

**QUALIFYING CRITERIA**

This section details minimum requirement on part of the bidder for the Annual Maintenance Contract for Machine Tools in Machine Shop & QM Work Shop. In general, the bidder must satisfy following criteria:

1. **General Profile:** The bidder must have a working experience in any of the fields listed at 1.1,1.2 and 1.3 below and must be in the fields listed at 1.4 & 1.5 below consist of following machine tools:
  - a) Vertical Boring Machine of Table dia. 4000 mm or higher size
  - b) Horizontal Boring Machine of Spindle dia. 160 mm or higher size
  - c) Lathe Machine of bed length 2500 mm or higher
  - 1.1. Supply, Erection and Commissioning of Machine Tools
  - 1.2. Electrical & Mechanical Retrofitting/ Reconditioning of Machine Tools
  - 1.3. Maintenance of Machine Tools including mechanical, hydraulic, electrical and electronic maintenance
  - 1.4. Maintenance of LT switchgear
  - 1.5. Maintenance of 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 2012-13, 2013-14 and 2014-15), must be not less than Rs. 20 Lacs.
  - 2.2. Bidder must submit proof of having carried out successfully work of similar nature during last 7 years ending last date of the month previous to the one in which NIT for this work is issued. Similar work means “Retrofitting of Machine Tools” OR “Reconditioning of Machine Tools” OR “Renovation of Machine Tools” OR “Uprooting, Shifting & Installation of Machine Tools” OR “Maintenance of Machine Tools on AMC basis” where machine tools will be considered as per clause 8
  - 2.3. The value of such works must be:

Not less than Rs. 27Lacs for each of minimum three similar completed works with any organization of repute but not the bidders own organization

OR

Not less than Rs. 34Lacs for each of minimum two similar completed works with any organization of repute but not the bidders own organization

OR

Not less than Rs. 54Lacs for each of minimum one similar completed works with any organization of repute but not the bidders own organization

**As a proof, completion certificate(s) from the original client(s) must be submitted. In case of AMC, order value per annum will be considered for evaluation. Any work supporting or facilitating to above work will not be considered.**
3. **Team:** The bidder must have a good team, experienced in maintenance or reconditioning or retrofitting of equipments and machine tools of similar nature. The bidder is to submit the tentative category wise list of team members proposed to be deputed for the purpose of execution of the contract, mentioning their qualification and experience along with the bid for assessment by BHEL. BHEL, at its discretion may ask any or all bidders to submit documents in support of the qualifications/experience of any or all the team

members mentioned in the list submitted. All the members must be ready and willing to work beyond normal working hours.

4. **Compliance to Govt. Rules:** The bidder must have proper registration for PF, ESI, Income Tax, Service Tax, Labour license etc. as per Govt. Rule. The bidder shall also have to comply with the Government as well as BHEL rules and regulations. Bidder has to fill & submit the enclosed Performa.
5. Documents supporting the aforementioned qualifying criteria **MUST** be submitted by the bidders along with the Techno-Commercial Bid. **If it is found at any time that the particulars submitted by the contractor are false, suitable action will be taken. This may lead to cancellation of contract/registration from all the BHEL units & forfeiting of Earnest Money Deposit (EMD) /Security Deposit (SD).**
6. Bidder must submit tender cost & Earnest Money Deposit (EMD) along with Techno-Commercial offer. In case the tender cost/EMD is not submitted with techno-commercial offer or less than that specified in NIT, tender will be rejected without any prior notice and any amount deposited will be forfeited.
7. Bidder's acceptance for opening price bid through reverse auction process must be submitted as per Annexure G. However, BHEL may opt to decide L-1 through Reverse Auctioning or by opening the price bid.
8. In the above descriptions following machines will be considered in Machine Tools:
  - 8.1. Vertical Boring Machine of Table dia. 4000 mm or higher size
  - 8.2. Horizontal Boring Machine of Spindle dia. 160 mm or higher size
  - 8.3. Lathe Machine of bed length 2500 mm or higher

## 9. Following checklist to be filled by the bidder.

Sl. No.	Required Data	To be filled by the bidder	Remarks of Bidder for supporting documents (Enclosed/Not Enclosed)
1.	PF Registration No		
2.	Service Tax Registration No		
3.	PAN No.		
4.	ESI Registration No		
5.	Documents as per clause 1		
6.	Average Turnover of last three years 2012-13 2013-14 2014-15		
7.	Value & Year of Similar Contract/s Work Order as per clause 2		
8.	List of Team as per clause 3		
9.	Earnest Money (DD No.)		
10.	Tender Fee (DD No.)		
11.	Acceptance for Reverse Auctioning		

## BUSINESS RULES FOR REVERSE AUCTION

### GENERAL TERMS AND CONDITIONS OF REVERSE AUCTION

Against this Enquiry for the subject works contract as per our specification, BHEL-CFFP may resort to "ONLINE REVERSE AUCTION PROCEDURE" i.e. **ONLINE BIDDING on INTERNET.**

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on Internet.
3. BHEL will inform the vendor in writing in case reverse auction, the details of service provider to enable them to contact and get trained.
4. Business rules like event date, time, start price, bid decrement, extensions, etc. also will be communicated through service provider for compliance.
5. Vendors have to email a scanned copy of the Process Compliance Form (**Annexure II**) in the prescribed (provided by service provider) before start of Online Initial Sealed Bid. Without this form, the vendor will not be eligible to participate in the event.
6. The "Total Cost to BHEL" will be quoted price including taxes and duties **but excluding the service tax.** The quoted price should be based on rates as given in the bill of quantity submitted along with the tender. The Bill of Quantity of the tender should be referred by each vendor to enable them to fill-in the price and keep it ready for keying in during the auction.
7. Reverse auction will be conducted on schedule date & time.
8. At the end of reverse auction event, the lowest bidder value will be known on the network.
9. The lowest bidder has to email a scanned copy of the price break-up duly signed filled-in prescribed format Annexure-III to BHEL through service provider within 24 hours of the reverse auction without fail.
10. Any variation between the on-line bid value and signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.
11. In case BHEL decides not to go for Reverse auction procedure for this tender enquiry, the price bids and price impacts, if any already submitted and available with BHEL shall be opened as per BHEL standard practice.
12. Only those vendors, who participate in the Online Initial Sealed Bid, will be eligible to participate in the subsequent Online English Reverse Auction.
13. **The reverse auction will be treated as closed only when the bidding process gets closed in all respects for the item listed in the tender.**

## **Business Rules for finalization of tender**

BHEL shall finalize the Tender through reverse auction mode by **BHEL appointed service provider** for the same, who shall be BHEL's authorized service provider for the same. Please go through the guidelines given below and submit your acceptance to the same along with your Commercial Bid.

1. Computerized reverse auction shall be conducted by BHEL, on pre-specified date, while the vendors shall be quoting from their own offices/ place of their choice. Internet connectivity shall have to be ensured by vendors themselves. In extreme case of failure of Internet connectivity, (due to any reason whatsoever may be) it is the bidders' responsibility / decision to send fax communication immediately to **BHEL appointed service provider**. Furnishing the price the bidder wants to bid online with a request to the service provider to upload the faxed price on line so that the service provider will upload that price on line on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by the service provider in a readable / legible form and also the Bidder should simultaneously check up with service provider about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be up loaded by the service provider only within the closure of Bid time and under no circumstance it shall be allowed beyond the closure of Bid time / reverse auction. It shall also be noted that the service provider should be given a reasonable required time by the bidders, to upload such prices online and if such required time is not available at the disposal of the Service provider at the time of receipt of the fax message from the bidders, the service provider will not be uploading the prices and either BHEL or the service provider are not responsible for this unforeseen circumstances. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/ alternatives whatever required so that they are able to circumvent such situation and still be able to participate in the reverse auction successfully. Failure of power at the premises of vendors during the Reverse auction cannot be the cause for not participating in the reverse auction. On account of this, the time for the auction cannot be extended and neither BHEL nor **BHEL appointed service provider** is responsible for such eventualities.
2. **BHEL appointed service provider** shall arrange to train your nominated person (s), without any cost to you. They shall also explain you, all the Rules related to the Reverse Auction / Business Rules Document to be adopted along with bid manual. You are required to give your compliance on it before start of bid process.
3. **ITEM FOR BID:** Total price quoted for the said work invited vide [CFF/M&S/RMS/2K15/AMC/01/NIT](#)
4. **Starting Bid/Bid Decrement:** The opening price of the RA and the bid decrement value shall be available to the bidders before 05 minutes of the start of the auction and same shall be displayed on the auction website.

5. **BIDDING CURRENCY AND UNIT OF MEASUREMENT:** Bidding and evaluation will be conducted in **Percent** of the estimated cost. The price bid placed during the “Sealed Bid Auction” as well as “Reverse Auction” shall be the total price for the work.
6. **BID PRICE:** The Bidder has to quote the Total Cost to BHEL for the work as per Price Bid sheet provided by BHEL.
7. The technical & commercial terms are as per BHEL Tender [CFF/M&S/RMS/2K15/AMC/01/NIT.](#) Vendor’s technical and commercial bid and subsequent correspondences between BHEL and the vendors regarding commercial terms & conditions.
8. **VALIDITY OF BIDS:** The Bid price shall be firm for a period of 60 days and shall not be subjected to any change whatsoever.
9. At the end of the reverse auction, bidder has to provide a detailed break-up (as per BHEL’s price bid sheet) for his lowest offer within 24 hours of the reverse auction.
10. **Procedure of Reverse Auctioning:**
11. **Online Initial Sealed Bid:** The opening bid (In the initial auction) of the bidders shall place a bid which shall be same as that quoted in their Final Sealed price submitted to BHEL or lesser. The bidders shall confirm in writing to BHEL that their opening bid shall be same as that quoted in their final sealed price bid submitted against Tender [CFF/M&S/RMS/2K15/AMC/01/NIT.](#) If it is found to be otherwise at a later date, the bidder will be disqualified from the tender.
  - i. **Online English Reverse (no ties) Auction {Reverse Auction}:** BHEL will declare its **Opening Price (OP)**, which shall be visible to the all vendors during the start of the reverse Auction. You will be required to start bidding after announcement of Opening Price and decrement amount. Also, please note that the start price of an item in online reverse auction is open to all the participating bidders. Any bidder can start bidding, in the online reverse auction, from the start price itself. If the start price is your own price, you still need to bid in the online reverse auction. Also, please note that the first online bid that comes in the system during the online reverse auction can be equal to the auction's start price, or lesser than the auction's start price by one decrement, or lesser than the auction's start price by multiples of decrement. The second online bid and onwards will have to be lesser than the L1 rate by one decrement value, or lesser than the L1 rate by multiples of the decrement value.
  - (i) The vendor’s who have participated in the Online Initial Sealed Bid for a particular item will only be eligible to participate in the subsequent English Reverse Auction for that particular item.

- (ii) Online Initial Sealed Bid will be for **30 minutes** and Online English Reverse (no ties) Auction shall be for a **period of one hour**. If a bidder places a bid in the last 10 minutes of closing of the Reverse Auction and if that bid gets accepted, then the auction's duration shall get extended automatically for another 10 minutes, for the entire auction (i.e. for all the items in the auction), from the time that bid comes in. Please note that the auto-extension will take place only if a bid comes in those last 10 minutes and if that bid gets accepted. If the bid does not get accepted, the auto-extension will not take place even if that bid might have come in the last 10 minutes. In case, there is no bid in the last 10 minutes of closing of Reverse Auction, the auction shall get closed automatically without any extension. **However, vendors are advised not to wait till the last minute or last few seconds to enter their bid during the auto-extension period to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.**
  - (iii) The bid decrement amount shall be specified by BHEL before start of bidding.
  - (iv) Any commercial loading shall be intimated to bidders in advance and it shall be added to price during dynamic auction process. For evaluation purpose, commercial loading if any, shall be added to the quoted price of respective bidder. However for ordering only the final bid placed by you shall be considered.
  - (v) After the completion of English Reverse (no ties), the **Closing Price (CP)** shall be available. In case, any commercial loading was made to L1 bidder's price, it shall be de-loaded from the closing price of L1 bidder (**CP**) for further processing.
  - (vi) The ratio of CP and originally quoted price shall be applied on all elements of originally quoted prices to arrive at the final price break-up.
12. Successful vendor shall be required to submit the final prices, quoted during the English Reverse (no ties), as per BHEL's price bid sheet format, after the completion of Auction to BHEL, within 24 hours of the reverse auction, duly signed and stamped as token of acceptance without any new condition other than those already agreed to before start of auction.
13. During the Online English Reverse (No Ties) Auction, if no bid is received in the auction system/website within the specified time duration of the reverse auction, then **BHEL**, at its discretion, may decide to revise the auction's Opening Price / scrap the online reverse auction process / proceed with the conventional mode of tendering (opening of the hard copy final bids submitted by you earlier to BHEL).
14. Your bid will be taken as an offer to supply. Bids once made by you, cannot be cancelled / withdrawn and you shall be bound to supply as mentioned above at your final bid price.

**Should you back out and not supply as per the rates quoted, BHEL shall take action as appropriate.**

15. You shall be assigned a **Unique User Name & Password** by **BHEL appointed service provider for reverse auctioning**. You are advised to change the Password and edit the information in the Registration Page after the receipt of initial Password from **BHEL appointed service provider for reverse auctioning** to ensure confidentiality. All bids made from the Login ID given to you will be deemed to have been made by your company.
16. You will be able to view the following on your screen along with the necessary fields in the English Reverse (no ties) {Reverse Auction}:
  - a. Leading Bid in the Auction (only total price)
  - b. Bid Placed by you
  - c. Your Own Rank
  - d. Opening Price & Bid Decrement value.
17. At the end of the Reverse Auction, BHEL will decide upon the winner. BHEL's decision on award of Contract shall be final and binding on all the Bidders.
18. BHEL shall be at liberty to cancel the reverse auction process / tender at any time, before ordering, without assigning any reason.
19. BHEL shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.
20. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.
21. You are required to submit your acceptance (**Process Compliance Form—Annexure II**) to the terms/ conditions/ modality given above before participating in the reverse auction.

### **TERMS & CONDITIONS OF REVERSE AUCTION**

1. **LOG IN NAME & PASSWORD:** Each Bidder is assigned a Unique User Name & Password by **BHEL appointed service provider for reverse auctioning**. The Bidders are requested to change the Password and edit the information in the Registration Page after the receipt of initial Password from **BHEL appointed service provider**. All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.

2. **BIDS PLACED BY BIDDER:** The bid of the bidder will be taken to be an offer to execute the work. Bids once made by the bidder cannot be cancelled. The bidder is bound to execute the work as mentioned above at the price that they bid. Should any bidder back out and not make the supplies at per the rates quoted, BHEL and / **BHEL appointed service provider for reverse auctioning**, shall take action as appropriate.
3. **LOWEST BID OF A BIDDER:** In case the bidder submits more than one bid, the lowest bid will be considered as the bidder's final offer to execute the work.
4. **AUCTION TYPE:** 1). Online Initial Sealed Bid  
2). Online English Reverse Auction
5. **DURATION OF AUCTION:** The duration of Auction will be one hour. If a bidder places a bid in the last 10 minutes of closing of the Reverse Auction and if that bid gets accepted, then the auction's duration shall get extended automatically for another 10 minutes, for the entire auction (i.e. for all the items in the auction), from the time that bid comes in. Please note that the auto-extension will take place only if a bid comes in those last 10 minutes and if that bid gets accepted. If the bid does not get accepted, the auto-extension will not take place even if that bid might have come in the last 10 minutes. In case, there is no bid in the last 10 minutes of closing of Reverse Auction, the auction shall get closed automatically without any extension. However, vendors are advised not to wait till the last minute or last few seconds to enter their bid during the auto-extension period to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.
6. **BID DECREMENT:** The minimum Bid decrement shall be available to the Bidders at the start of the auction on their bidding screen. The bidder can bid lower than the Lowest Bid in the auction by a decrement, multiple of the minimum Bid decrement or at least of minimum bid decrement plus multiples of Bid Decrement. Also, please note that the start price of an item in online reverse auction is open to all the participating bidders. Any bidder can start bidding, in the online reverse auction, from the start price itself. If the start price is your own price, you still need to bid in the online reverse auction. Also, please note that the first online bid that comes in the system during the online reverse auction can be equal to the auction's start price, or lesser than the auction's start price by one decrement, or lesser than the auction's start price by multiples of decrement. The second online bid and onwards will have to be lesser than the L1 rate by one decrement value, or lesser than the L1 rate by multiples of the decrement value.
7. **VISIBILITY TO BIDDER:** The Bidder shall be able to view the following on his screen along with the necessary fields during English Reverse – No ties Auction:
  - Leading Bid in the Auction
  - Bid Placed by him

- His Own Rank
  - Start Price & Bid Decrement Value
8. **AUCTION WINNER:** At the end of the Reverse Auction, BHEL will evaluate all the bids submitted and will decide upon the winner.
9. **PROXY BIDS:** Proxy bidding feature is a pro-supplier feature to safe guard the supplier's interest of any Internet failure or to avoid last minute rush. The Proxy feature allows Bidders to place an automated bid against other Bidders in an auction and bid without having to enter a new amount each time a competing Bidder submits a new offer.

The bid amount that a Bidder enters is the minimum that the Bidder is willing to offer. Here the software bids on behalf of the supplier.

- **The proxy amount is the minimum amount that the Bidder is willing to offer. During the course of bidding, the Bidder cannot delete or change the amount of a Proxy Bid.**
- **Bids are submitted in decrements (decreasing bid amounts). The application automates proxy bidding by processing proxy bids automatically, according to the decrement that the auction originator originally established when creating the auction, submitting offers to the next bid decrement each time a competing Bidder bids, regardless if competing bids are submitted as proxy or standard bids.**

**GENERAL TERMS & CONDITIONS:** Bidders are required to read the "Terms and Conditions" section of the auction website using the Login IDs and passwords given to them.

#### 10. OTHER TERMS & CONDITIONS:

- **The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers / bidders.**
- The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
- BHEL's decision on award of Contract shall be final and binding on all the Bidders.
- BHEL along with **BHEL appointed service provider for reverse auctioning** can decide to extend, reschedule or cancel any Auction. Any changes made by BHEL and /

or **BHEL appointed service provider for reverse auctioning**, after the first posting will have to be accepted if the Bidder continues to access the site after that time.

- **BHEL/BHEL appointed service provider for reverse auctioning** shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause.
  
- **BHEL/BHEL appointed service provider for reverse auctioning** are not responsible for any damages, including damages that result from, but are not limited to negligence.
  
- **BHEL/BHEL appointed service provider for reverse auctioning** will not be held responsible for consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

**ANNEXURE- I**

**Detail of tender along with the Quantities and the Auction Start Time & Close Time is as follows:**

**ITEM DESCRIPTION:**

**[As per BHEL Tender NIT. No. CFF/M&S/RMS/2K15/AMC/01/NIT](#)**

<b><u>Item</u></b>	<b><u>Opening Prices</u></b>	<b><u>Bid Decrement</u></b>	<b><u>Opening Time</u></b>	<b><u>Closing Time</u></b>
Items as per BOQ of above tender	Shall be displayed before RA bidding	Shall be intimated by the service provider		

## **Process Compliance Form**

(The bidders are required to print this on their company's letterhead, sign & stamp before emailing a scanned copy)

-----  
-----  
-----

**Sub: Agreement to the Process related Terms and Conditions for the Reverse Auction**

Dear Sir,

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the Tender document for the work of **Annual Maintenance Contract for the machines in Machine Shop & QM Work Shop vide NIT No: CFF/M&S/RMS/2K14/AMC/01/NIT**

This letter is to confirm that:

- 1) The undersigned is authorized representative of the company.
- 2) We have studied the Commercial Terms and the Business rules governing the Reverse Auction as mentioned in your letter and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the auction tool and have understood the functionality of the same thoroughly.
- 4) We also confirm that we will email a scanned copy or fax the price break-up of our online quoted price, within 24 hours of the reverse auction, as per BHEL's price bid sheet format.
- 5) We, hereby, confirm that we will honour the Bids placed by us during the auction process.
- 6) We also confirm that we will accept our Rank / Position that will be displayed when the Bidding Time is Over of the Online Reverse Auction.
- 7) We confirm that we have changed the password on the auction website after first log in.
- 8) We have studied BHEL's price bid sheet carefully & accept the same.

With regards,

Signature with company seal

Name –

Company / Organization –

Designation within Company / Organization –

Address of Company / Organization –

-----  
 -----  
 -----

**Sub: Final price quoted during reverse auction for the work of Annual Maintenance Contract for the machines in Machine Shop & QM Work Shop vide NIT No: CFF/M&S/RMS/2K14/AMC/01/NIT**

Dear Sir,

We confirm that we have quoted the prices as follows:

Description	Amount (Rs)
A. Estimated cost of work	
B. Quoted price inclusive of all taxes and duties but exclusive of service tax	

Thanking you and looking forward to the valuable order from BHEL.

Yours sincerely,

For \_\_\_\_\_

**Name:**

**Company:**

**Date:**

**Seal:**

**Note:**

***The above rules, terms and conditions and various formats for reverse auctioning are given to give the tenderer general information about reverse auctioning process. There may be slight changes in rules and formats at the time of reverse auctioning. The complete set of business rules, terms and conditions and formats shall be provided by the actual service provider appointed by BHEL before the reverse auctioning.***