



BHARAT HEAVY ELECTRICALS LIMITED
HEEP: HARDWAR-249 403 (UA)
Fax: 01334-226084/226462, Phone: 285849/284421
E-mail: ajain@bhelhwr.co.in

Ref: BOI/EOI/15-16/01

Date: 09/05/2015

EXPRESSION OF INTEREST

Bharat Heavy Electricals Limited (BHEL) is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing companies in India in terms of turnover. BHEL offers over 180 products and provides systems and services to meet the needs of core sectors like: power, transmission, industry, transportation, oil & gas, non-conventional energy sources and telecommunication. A wide-spread network comprising 15 manufacturing divisions, 8 service centers, 4 power sector regional centers, 18 regional offices, besides a large number of project sites spread all over India and abroad, enables BHEL to be close to its customers and cater to their specialized needs with total solutions - efficiently and economically. **The Heavy Electrical Equipment Plant (HEEP)** located in Haridwar, is one of the major manufacturing plants of BHEL. The core business of HEEP includes design and manufacture of large steam turbines, turbo generators, hydro turbines and generators and so on.

We are looking for reputed Vendors having capability to supply "HIGH PRESSURE FIRE RESISTANT FLUID BASED ELECTRO HYDRAULIC GOVERNING (EHG) AND ITS CONTROL & PROTECTION SYSTEM" for 200/210 MW LMZ Set, as per Specifications/Documents provided (listed at Page-3 of this document)

Sealed offers with the Tender No. and opening date clearly super scribed on the cover are invited for the following item:

Sl. No.	Tender No.	Item Description	Last date to download documents from BHEL websites	Opening date
1	PPX/BOI/EOI/EHG	HIGH PRESSURE FIRE RESISTANT FLUID BASED ELECTRO HYDRAULIC GOVERNING (EHG) AND ITS CONTROL & PROTECTION SYSTEM for 200/210 MW LMZ Set	29/05/2015	30/05/2015

2. Tenders will be received up to 1345 Hrs. (IST) on opening date and opened on the same day at 1400 Hrs. (IST) in the Tender Room.
3. Late offers will not be considered in any case. BHEL will not be responsible for any type of postal delay / incomplete information from vendor.
4. The offer of the vendors who are De-Listed/ Under Hold by BHEL, shall not be considered till the period of their De-list/ Hold. **The offers of the bidders who are on the banned list and also the offer of the bidders, who engage the services of the banned firm, shall be rejected. The list of banned firms is available on BHEL website www.bhel.com**
5. Other term and conditions will be as per tender documents.

For any further details please log on to www.bhel.com or www.tenders.gov.in or www.bhelhwr.co.in

(Anil Jain)
A.G.M. (PPX-BOI)



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INSTRUCTION TO BIDDERS

Eligibility and Pre- Qualification criteria are enclosed. The offers are invited from suppliers having technical capability as per enclosed tender documents and PQR. The offers received will be technically evaluated by BHEL and short listed vendors will be asked to submit their detailed Techno-Commercial offers through formal NIT/Enquiry, for our future requirements.

Only Technical BID along with documents in support of PQR are to be submitted at this stage. No price bid is to be submitted along with this offer.

The Technical Bid submitted by you should comprise of the following documents:

1. Details/Documents in support of Pre-Qualification Requirement (as enclosed).
2. Non- disclosure agreement in the attached format
3. Deviation with reference to specification to be laid down on separate sheet.
4. Quality control documents / procedure.
5. Quality Plan in enclosed Format.
6. Details of Manufacturing Facility
7. Company Profile.
8. Financial report of the company
9. Quality plan being followed for the mentioned equipment
10. Supplier Registration Form: The Supplier Registration Form (SRF) duly filled will be assessed for manufacturing capability, quality systems being followed, organizational soundness and financial worthiness. The SRF is enclosed for your reference. This form may also be downloaded from www.bhelhwr.co.in or www.bhel.com

The following shall be super scribed on the envelope:

1. TENDER NO. AND ITEM DESCRIPTION.
2. DUE DATE FOR OPENING.
3. "TECHNICAL BID"

- **The offer should be from the Principal / Original Manufacturer, failing which the quotation is likely to be ignored.**
- Any corrections / amendments shall be properly & fully authenticated with signature.
- Vendors operating from BHEL quarters, unauthorized colonies on BHEL Land and Dharamshalas/ Hotels shall not be considered, hence such vendors need not apply.

BHEL will deal directly with the manufacturer and no correspondence with the agents will be entertained. The agents will not be permitted to visit / interact with BHEL on behalf of their principals. Subsequently also, no correspondence of any type will be made with any agents (all individuals / companies – representative / adviser / retainer ship basis or claimed to be part time employees for many OEMs / claiming to be channel or business partner for BHEL work / stockist not registered specifically etc. are agents). Communications with only those agents who have submitted agency agreement with their respective principal may be done.

The bidders (originals manufacturers) will have to submit ink-signed offer / bid in original directly to BHEL. In case the bid is submitted by fax / email, the bidders shall simultaneously ensure submission of ink-signed original bid to BHEL also in the manner prescribed in this tender.

The suppliers or their authorized person may be allowed to attend the tender opening, duly authorized by their principals, through a specific letter for a particular enquiry for specific price bid opening on that particular day. General authorization letter is not acceptable. Technical Bid will be opened on the date and time specified in the covering letter, in the presence of those vendors, who wish to attend the tender opening. **BHEL reserves the right to evaluate vendor's process capability / quality systems etc. by visiting vendor works (if required)**

(Anil Jain)
A.G.M. (PPX-BOI)



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LIST OF ENCLOSED DOCUMENTS

The Specifications/Drawings uploaded along with this EOI are as mentioned below. In case of non-receipt or non-clarity of any of these documents, you may contact undersigned.

<u>Pre-Qualification Requirement & Technical Documents</u>		
	<u>Document No.</u>	<u>Number of pages</u>
1.	PRE-QUALIFICATION REQUIREMENT (PQR)	1
2.	ANNEXURE-I referred in PQR	1
3.	DRAWING NO. 3-11400-10005	4
4.	ADDENDUM TO SPECIFICATION 31140010005	1
5.	ANNEXURE-A OF ADDENDUM TO SPECIFICATION 31140010005	1
6.	ANNEXURE-B OF ADDENDUM TO SPECIFICATION 31140010005	2
7.	ANNEXURE-C OF ADDENDUM TO SPECIFICATION 31140010005	1
8.	BHEL STANDARD QUALITY PLAN FORMAT	1
9.	TOTAL PAGES	12

<u>Registration Documents</u>		
	<u>Document No.</u>	<u>Number of pages</u>
1.	SUPPLIER REGISTRATION FORM (for foreign supplier)	04
2.	SUPPLIER REGISTRATION FORM (for Indian supplier)	19
3.	NON DISCLOSURE AGREEMENT	10
4.	TOTAL PAGES	33

FOR ANY FURTHER DETAILS, YOU MAY FEEL FREE TO CONTACT THE FOLLOWING PERSONS:

Contact Person 1:

Mr. Rahul Sharma
Designation: Sr. Engineer (PPX/BOI)
Email ID: rahul@bhelhwr.co.in
Tel: +91 1334 28 4421
Mob: +91 9759224824

Contact Person 2:

Mr. Anil Jain
Designation: AGM (PPX/BOI)
Email ID: ajain@bhelhwr.co.in
Tel: +91 1334 28 5849

Pre-Qualification Requirements for “High Pressure Electro-Hydraulic Governing (EHG) system and its Control & Protection system for 200/ 210 MW LMZ sets”:

1- The vendor should have experience of carrying out retrofit of “**Hydro-mechanical Governing system** of 200/210 MW LMZ design Steam turbine having main steam pressure & temperature as 130 kg/cm² & 535deg C respectively” with “**High pressure fire resistant fluid based Electro-hydraulic governing & Protection system**”. The modified Turbine governing system should comprise of individual Electro-Hydraulic Actuator (EHA) for each stop & control valve for HP & IP Valve (Total 12 nos. actuators : 4 nos. HPCV, 4 nos. IPCV, 2 nos. HPSV & 2 nos. IPSV) along with centralized Hydraulic Power Supply Unit (HPSU) for supply of fire resistant fluid (FRF) to all the actuators. **The vendor to furnish the experience details as per Annexure-1.**

2-The vendor should have experience of carrying out the detailed design & engineering of above mentioned “**High pressure fire resistant fluid based Electro-hydraulic governing & protection system**” (referred at point 1). Further, the vendor to also furnish the supporting documents (viz., Modified Governing scheme, HPSU scheme, EHA scheme etc.) for the same.

3-The vendor should have experience of successful operation of above mentioned “**High pressure fire resistant fluid based Electro-hydraulic governing & protection system**” (referred at point 1) for minimum one year as on date of bid opening in at least two Steam Turbine units of 200/ 210 MW. The vendor to furnish the Running certificate of the Steam Turbine units as per cl.no. 19 of Annexure-1.

4- The “**High pressure fire resistant fluid based Electro-hydraulic governing & protection system**” supplied by the vendor (referred at point 1) should have the following parameters:

a- Working pressure of FRF \geq 140 bar

b- Name plate rating of Steam Turbine = 200/ 210 MW

c- Steam Turbine type: LMZ design

Further the vendor to also furnish the supporting documents for the same

5- The vendor should have experience of supplying Digital control system for governing & protection systems including online testing of valves/protective devices for above mentioned system (referred at point 1). Further the vendor to also furnish the supporting documents for the same.

6- The vendor should have the experience of successful operation of above mentioned systems (point no. 5) with interfacing with plant DCS, for minimum one year as on date of bid opening in at least two Steam Turbine units of 200/ 210 MW.

Against vendor’s replies, BHEL reserves the right to ask for more information / documents/ clarifications. Vendor’s offer shall not be considered if vendor fails to furnish the document / information / clarifications as mentioned above or vendor doesn’t meet the acceptance criteria as mentioned from SI no. 1 to 6.

Department	Prepared By	Approved By
STE	L.Singh/R.Rawat	R.Gulati
CIE	S.K.Das	K.B.Batra

Annexure- I**Experience list format**

<u>Sl. No.</u>		<u>BHEL purchase spec. requirements</u>	<u>Steam Turbine unit 1</u>	<u>Steam Turbine unit 2</u>
1.	Name of the station and its Location			
2.	Client name and its address, Fax no. & Tel. No.			
3.	Name and designation of the responsible person in client's organization			
4.	Contract No. & Date			
5.	Name plate rating in MW of unit	200/210 MW		
6.	Starting date of work/ Date of order			
7.	Scheduled date of completion			
8.	Actual date of completion			
9.	Date of Commissioning of system/ package			
10.	Whether the system/ equipment are in successful operation as on date of bid opening			
11.	Brief Scope of work			
12.	Designed by			
13.	Manufactured by			
14.	Control fluid used	FRF		
15.	Working pressure of HPSU	≥ 140 bar		
16.	Hydraulic power supply unit:	1 no.		
17.	No. of Electro-hydraulic actuators for turbine valves	12 nos. (2 HPSV, 2 IPSV , 4 HPCV & 4 IPCV)		
18.	a)Whether digital control for EHG supplied.			
	b) Hardware type			
	c) Whether Turbine Protection system supplied.			
	d) Whether Automatic testing of all valves and protective device were supplied			
	e) Whether interfacing of EHG control system with plant DCS .			
	f) Make of plant DCS			
19.	Certificate (s) from the client (end) That the aforesaid system is in successful operation for a period of not less than 1 year and caused no serious problem in past.	To be furnished by the vendor		

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Ref.Drawing No> --

Sign & Date

Inventory No

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

FORM DG 38(B)

3-11400-10005

DRAWING No.

TECHNICAL PURCHASE SPECIFICATIONS FOR ENGINEERING, SUPPLY, INSTALLATION/ERECTION AND COMMISSIONING OF HIGH PRESSURE FIRE RESISTANT FLUID BASED ELECTRO HYDRAULIC GOVERNING (EHG) AND ITS CONTROL & PROTECTION SYSTEM FOR 200/210 MW LMZ DESIGN STEAM TURBINE

A. SCOPE OF SUPPLY:-

1. STEAM MASS FLOW LINEARIZATION WITH RESPECT TO VALVE LIFT SUITABLE FOR HP TURBINE & IP TURBINE (i.e. GOVERNING CHARACTERISTICS FOR HP & IP VALVES)- 1 SET;
2. HIGH PRESSURE FIRE RESISTANT FLUID BASED ELECTRO HYDRAULIC GOVERNING (EHG) SYSTEM MAINLY CONSISTING OF FOLLOWING;
- 2.1 HYDRAULIC POWER SUPPLY UNIT (HPSU-1 SET); IT MAINLY CONSISTS OF HP OIL PUMP ASSEMBLY, S.S. OIL TANK, FILTER PUMP MOTOR ASSEMBLY, COOLER, ACCUMULATOR, FILTER, PRESSURE SWITCH, PRESSURE TRANSDUCER, LEVEL INDICATOR, REGENERATION UNIT, TANK HEATER ETC. TO FORM THE ONE COMPLETE UNIT IN ALL RESPECT;
- 2.2 MAIN STEAM STOP VALVE ACTUATORS (2 NOS.) – IT MAINLY CONSISTS OF OIL CYLINDER, SPRING BOX, SPRING HOUSING, MANIFOLD BLOCK, COUPLING DEVICE, SOLENOID VALVE, LVDT, CHECK VALVE ETC. TO FORM ONE COMPLETE UNIT IN ALL RESPECT;
- 2.3 REHEAT STEAM STOP VALVE ACTUATOR (2 NOS.)– IT MAINLY CONSISTS OF OIL CYLINDER, SPRING BOX, SPRING HOUSING, MANIFOLD BLOCK, COUPLING DEVICE, SOLENOID VALVE, LVDT, CHECK VALVE ETC. TO FORM ONE COMPLETE UNIT IN ALL RESPECT;
- 2.4 MAIN STEAM CONTROL VALVE ACTUATOR (4 NOS.) – IT MAINLY CONSISTS OF OIL CYLINDER, SPRING BOX, SPRING HOUSING ,MANIFOLD BLOCK, COUPLING DEVICE, SERVO VALVE, LVDT, CHECK VALVE ETC. TO FORM ONE COMPLETE UNIT IN ALL RESPECT;
- 2.5 REHEAT STEAM CONTROL VALVE ACTUATOR (4 NOS) – IT MAINLY CONSISTS OF OIL CYLINDER, SPRING BOX, SPRING HOUSING, MANIFOLD BLOCK, COUPLING DEVICE, SERVO VALVE, LVDT, CHECK VALVE ETC. TO FORM THE ONE COMPLETE UNIT IN ALL RESPECT;
- 2.6 EMERGENCY TRIP DEVICE (1 SET)– IT MAINLY CONSISTS OF SOLENOID ASSEMBLY, PRESSURE SWITCH, RACK ETC. TO FORM ONE COMPLETE UNIT IN ALL RESPECT;
- 2.7 DIAPHRAGM VALVE OR EQUIVALENT (AS APPLICABLE) –1 NO;
- 2.8 ELECTRO HYDRAULIC OIL PIPE SYSTEM (1 SET);
- 2.9 ELECTRO HYDRAULIC POWER SUPPLY CABINET (1 SET);
- 2.10 FIRE RESISTANT FLUID (APPLICABLE QUANTITY TO BE MENTIONED BY THE VENDOR IN THEIR OFFER) – 1 FILL. TOTAL CONTROL FLUID QUANTITY SHALL COMPRISE OF QUANTITIES REQUIRED FOR REGULAR EHG OPERATION + FLUSHING OF COMPLETE EHG SYSTEM + SUFFICIENT QUANTITY FOR ONE YEAR TOP UP. THE VENDOR TO FURNISH THE SPECIFICATION & SOURCE OF PROCUREMENT FOR BHEL REVIEW/APPROVAL.
- 2.11 LATCH SOLENOID VALVE UNIT-1 SET;
- 2.12 TURBINE SPEED MEASUREMENT ARRANGEMENT (1SET): IT MAINLY CONSISTS OF TOOTHED WHEEL/GEAR, SPEED PROBES, BRACKET ETC. TO FORM THE ONE COMPLETE UNIT IN ALL RESPECT.
3. EQUIPMENTS/ITEMS REQUIRED FOR INSTALLATION/ERECTION OF NEW ELECTRO-HYDRAULIC GOVERNING (EHG) SYSTEM –1 SET;
4. EQUIPMENTS/ITEMS REQUIRED FOR DISMANTLING OF EXISTING GOVERNING SYSTEM EQUIPMENTS/ITEMS-1SET;
5. COMMISSIONING SPARES-1 SET;
6. SUPERVISION FOR DISMANTLING OF EXISTING GOVERNING SYSTEM EQUIPMENT/ITEMS AND ERECTION & COMMISSIONING OF NEW ELECTRO-HYDRAULIC GOVERNING (EHG) SYSTEM;
7. ANY OTHER EQUIPMENTS/ITEMS REQUIRED FOR IMPLEMENTATION OF ELECTRO-HYDRAULIC GOVERNING (EHG) SYSTEM FOR 200/210 MW LMZ –1 SET;
8. TRAINING PROGRAM AT SITE FOR MINIMUM 6 DAYS SHALL BE PROVIDED BY SUPPLIER REGARDING DESIGN/CONSTRUCTION FEATURES, OPERATION & MAINTENANCE OF THE SUPPLIED EQUIPMENTS (INCLUDING C & I) TO CUSTOMER ENGINEERS & BHEL ENGINEERS;
9. ACCESSORIES: –
- 9.1. MOTORIZED CONTROL FLUID PUMP FOR FILLING OF FLUID IN CF TANK FOR HPSU-1 NO;
- 9.2. FILLING AND GAUGING DEVICE FOR HYD. ACCUMULATORS-1 NO;
- 9.3. CONTAMINATION MONITOR ALONG WITH COMPLETE ACCESSORIES (i.e CONNECTOR, PIPE, FITTINGS HOSES, CABLES & MINIMES COUPLING ETC)-1 NO;
- 9.4. EQUIPMENTS FOR CONTROL FLUID FLUSHING AND HYDRAULIC TESTING (CF PIPING AT PROJECT SITE)-1 SET;
- 9.5. SPECIAL TOOLS AND TACKLES –1 SET;
- 9.6. ANY OTHER ITEM SUPPLIED BY THE VENDOR AS PER THEIR STANDARD PRACTICE-1 SET;

MAT. CODE : W90311400124

GRADE OF UNTOL. DIM		C B O M		STATUS OF DRG		TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
M/CG.- AA0230208 m		CIE		S.K.D		-SD-		06.04.15		Bharat Heavy Electricals Ltd. RANIPUR, HARDWAR					
WELDING-CLASS 'B' OF AA0621104										BHEL					
GAS CUTTING-TABLE 3 OF AA0621101										BHEL					
REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED	DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
		CHECKED			CHECKED			CHECKED	CODE	4011	N.T.S	-	-	-	75
TITLE: ELECTRO HYDRAULIC GOVERINNG (EHG) SYSTEM FOR 200/210 MW LMZ RUSSIAN DESIGN ST										CARD CODE		DRAWING NO. 3-11400-10005			
												SHEET No. 1 No. OF SHEETS 4			

SIZE A3

DRAWING No.

1. TECHNICAL OFFER OF THE OFFERED ELECTRO-HYDRAULIC GOVERNING (EHG) SYSTEM MUST INCLUDE THE FOLLOWING;
 - 1.1. SCHEMATIC DIAGRAM OF COMPLETE EHG SYSTEM ALONG WITH FUNCTIONAL WRITEUP;
 - 1.2. TECHNICAL DATA SHEET OF VARIOUS ITEMS OF EHG SYSTEM SUCH AS HPSU, ACTUATORS, EMERGENCY TRIP SYSTEM ETC;
 - 1.3. GENERAL ARRANGEMENT DRAWING OF VARIOUS ITEMS OF EHG SYSTEM SUCH AS HPSU, ACTUATORS, EMERGENCY TRIP SYSTEM ETC;
 - 1.4. BRIEF FUNCTIONAL WRITE-UPS AND DETAIL OF MAJOR EQUIPMENTS OF THE SYSTEM;
 - 1.5. SIZING CALCULATION OF VARIOUS EQUIPMENTS OF HPSU. THIS WILL MAINLY INCLUDE THE FOLLOWING:
 - 1.5.1. CONTROL FLUID TANK & ACCUMULATORS;
 - 1.5.2. CONTROL FLUID PUMP (MAIN AXIAL PISTON PUMP), PUMP SELECTION, PUMP-MOTOR OUTPUT
 - 1.5.3. COOLING CIRCUIT
 - 1.5.4. REGENERATION CIRCUIT
 - 1.6. SIZING CALCULATION FOR STOP & CONTROL VALVE ACTUATORS OF THE SYSTEM. THIS WILL MAINLY INCLUDE THE FOLLOWING:
 - 1.6.1. SYSTEM CALCULATION FOR ACTUATORS SIZING
 - 1.6.2. WEIGHT AND LOCATION OF CENTER OF GRAVITY (C.G.) OF EACH ACTUATOR ASSEMBLY.
 - 1.6.3. DETAIL PART LIST OF ACTUATOR ASSEMBLY FOR HP AND IP VALVES.
 - 1.6.4. RESPONSE TIME OF CV ACTUATOR.
 - 1.6.5. FOLLOWING INFORMATION MAY BE FURNISHED WITH THE OFFER:
 - 1.6.5.1. NORMAL CLOSING TIME OF SERVOVALVE.
 - 1.6.5.2. FAILURE MODE CLOSING TIME (SWITCHING TIME) OF THE SERVOVALVE.
 - 1.6.5.3. MAXIMUM VOLUMETRIC FLOW VIA THE SERVO VALVE AT DIFFERENTIAL PRESSURE OF 140 BAR FOR HP & IP CONTROL VALVE ACTUATORS.
 - 1.6.5.4. MAXIMUM VOLUMETRIC FLOW IN THE SUPPLY LINE TO HP & IP CONTROL VALVE ACTUATORS DUE TO SHORT CIRCUITING OF THE SUPPLY AND RETURN LINES.
 - 1.6.5.5. OPENING AND CLOSING TIME OF SOLENOID VALVES PROVIDED ON THE CIRCUIT FOR HP & IP STOP VALVE ACTUATORS.
 - 1.7. POWER REQUIREMENTS FOR THE COMPLETE SYSTEM. A LIST DESCRIBING THE EQUIPMENTS, VOLTAGE WITH SPECIFIED TOLERANCES, RATED LOAD, REQUIRED LOAD, SPEED, NOMINAL CURRENT, PROTECTION TYPE & VOLTAGE TYPE ETC. TO BE FURNISHED;
 - 1.8. DRAWING & BILL OF MATERIAL OF FLUSHING DEVICE FOR OIL PIPING;
 - 1.9. DRAWING & BILL OF MATERIAL OF HYDRAULIC TEST DEVICE FOR OIL PIPING;
 - 1.10. LAYOUT DRAWINGS OF ELECTRO-HYDRAULIC OIL PIPING;
 - 1.11. FOUNDATIONS DETAILS OF HPSU;
 - 1.12. INSTRUMENTS LIST INDICATING KKS KEY, MAKE, MODEL, RANGE & SET POINT;
 - 1.13. LOAD LIST INCLUDING ALL DRIVES IN EHG SYSTEM;
 - 1.14. MANUFACTURING QUALITY PLAN ON BHEL FORMAT IN LINE WITH SPECIFICATION REQUIREMENTS, ALONGWITH OTHER QUALITY DOCUMENTS;
 - 1.15. LIST OF RECOMMENDED SPARE PARTS WITH THE COMPONENT IDENTIFICATION NO. FOR FUTURE ORDERING;
2. DETAIL OF DISMANTLING OF EXISTING GOVERNING SYSTEM ALONG WITH THE DISMANTLING PROCEDURE DULY CO-RELATED WITH THE DRAWING/DOCUMENTS;
3. ERECTION & COMMISSIONING PROCEDURE OF OFFERED ELECTRO-HYDRAULIC GOVERNING (EHG) SYSTEM FOR OUR REFERENCE;
4. INSTALLATION DRAWINGS OF THE OFFERED EQUIPMENTS;
5. C&I LOGIC DIAGRAM AND WIRING DIAGRAM;
6. ITEM WISE PRICE BREAK-UP OF SCOPE OF SUPPLY (REFERRED AT PARA A OF SPECIFICATION) SHALL BE FURNISHED BY THE VENDOR IN THEIR OFFER;
7. LIST OF REFERENCES (MINIMUM TWO NOS) OF THE OFFERED EHG SYSTEM FOR ITS PROVENNESS ALONG WITH CUSTOMER FEED BACK LETTER OF SUCCESSFUL OPERATION OF EHG SYSTEM FOR MINIMUM ONE YEAR;

SIZE A3

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Sign & Date

Inventory No

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

FORM DG 38(B)

3-11400-10005

DRAWING No.

C. CONTROL & INSTRUMENTATION TECHNICAL REQUIREMENTS AND SCOPE OF SUPPLY: AS PER BHEL SPECIFICATION DOCUMENT "ADDENDUM TO DRG. NO. 3-11400-10005";

D. CONTROL FLUID PRESSURE & TEMPERATURE:

1. NORMAL OPERATING PRESSURE ≥ 140 BAR;
2. NORMAL CONTROL FLUID TEMPERATURE : 45+5 DEG C;
3. MAXIMUM CONTROL FLUID TEMPERATURE : 75 DEG C;

E. FUNCTIONAL TESTING OF ELECTRO-HYDRAULIC GOVERNING (EHG) SYSTEM SHALL BE CARRIED OUT BY THE VENDOR AT VENDORS WORKS AS PER VENDOR'S STANDARD PROCEDURE FOR SUBJECT ITEM/SYSTEM. PRIOR TO START OF TESTING, THE VENDOR SHALL SUBMIT THE TESTING PROCEDURE ALONG WITH CROSS REFERRED STANDARDS & DOCUMENTS FOR BHEL REVIEW. TEST REPORT SHALL BE FURNISHED TO BHEL FOR REVIEW BEFORE COMMENCING THE DISPATCH OF THE EQUIPMENTS TO SPECIFIED DESTINATION. A COPY OF TEST REPORT SHALL ALSO BE FURNISHED ALONG WITH THE SUPPLY. INSPECTION & WITNESS OF FUNCTIONAL TEST OF EHG SYSTEM SHALL BE CARRIED OUT BY THIRD PARTY/BHEL ENGINEERS FOR WHICH INTIMATION TO BE GIVEN TO BHEL IN ADVANCE.

VENDOR TO NOTE THAT FUNCTIONAL TESTING OF THE ELECTRO-HYDRAULIC GOVERNING (EHG) SYSTEM SHALL BE CARRIED OUT USING THE SAME BRAND OF FRF WHICH SHALL BE USED FOR COMPLETE SYSTEM. AFTER THE TESTING, SYSTEM SHALL BE THOROUGHLY CLEANED FROM THE FLUID USED FOR TESTING. THE TRACES OF FLUID REMAINING INSIDE THE SYSTEM SHALL NOT BE MORE THAN 3% BY VOLUME OF THE TOTAL CHARGE OF FLUID USED FOR THE OPERATION OF COMPLETE SYSTEM.

F. THE RETAINED COMPONENTS OF THE EXISTING GOVERNING SYSTEM:-

1. EMERGENCY GOVERNOR, EMERGENCY GOVERNOR PILOT VALVE, LEVERS, TESTING COCK, INDICATOR, RELATIVE PIPES AND ACCESSORIES.
2. MANUAL KNOB AND SOLENOID VALVE FOR SHUTTING DOWN OF TURBINE, RELATIVE PIPES AND ACCESSORIES.
3. MAIN OIL PUMP, AUXILIARY OIL PUMP, DC LUBE OIL PUMP, AC LUBE OIL PUMP, LUBE OIL TANK, OIL COOLERS, DRAIN VALVE, PRESSURE SWITCH, RELATIVE PIPES AND ACCESSORIES.
4. ANY OTHER ITEM OF EXISTING SYSTEM, THE VENDOR TO SPECIFY.

G. QUALITY REQUIREMENTS:- QUALITY REQUIREMENTS SHALL GENERALLY BE IN ACCORDANCE WITH INTERNATIONAL PRACTICES FOR SIMILAR EQUIPMENTS EXCEPT OTHERWISE SPECIFIED IN THE SPECIFICATIONS AND MUTUALLY AGREED QUALITY PLAN FOR ELECTRO-HYDRAULIC GOVERNING (EHG) SYSTEM ON BHEL FORMAT. BHEL FORMAT FOR THE QUALITY PLAN SHALL BE PROVIDED TO SUPPLIER.

H. IDENTIFICATION:- SHALL BE ACCORDING TO HW0400397 OR AS PER VENDOR'S STANDARD DOCUMENT USED FOR IDENTIFICATION.

I. DOCUMENTATION FOR EHG SYSTEM (AFTER THE PLACEMENT OF P.O.):- 20 NOS. HARD COPIES AND 4 NOS. SOFT COPIES OF THE COMPLETE DOCUMENTATION SHALL BE FURNISHED BY THE VENDOR WITHIN 4-6 WEEKS FROM THE DATE OF PLACEMENT OF PURCHASE ORDER. DOCUMENTATION MUST INCLUDE THE FOLLOWING:

1. RETROFIT DETAILS OF THE EXISTING HYDRO MECHANICAL GOVERNING SYSTEM;
2. INSTALLATION DRAWINGS OF THE OFFERED EQUIPMENTS;
3. O&M MANUAL FOR THE ELECTRO-HYDRAULIC GOVERNING SYSTEM (EHG SYSTEM);
4. C&I LOGIC DIAGRAMS WITH WRITE UP;
5. WIRING DIAGRAM;
6. ERECTION & COMMISSIONING PROCEDURE;
7. DATA SHEET/CATALOGUE OF ALL THE EQUIPMENT/ITEMS USED IN EHG SYSTEM;
8. ALL APPLICABLE SCHEMES ALONG WITH WRITEUP;
9. ALL APPLICABLE BILL OF MATERIAL DULY CO-RELETED WITH THE EQUIPMENTS DRAWINGS;
10. SPARE PART DRAWINGS AND BILL OF MATERIAL;

MAT. CODE : W90311400124

GRADE OF UNTOL. DIM		M/CG.- AA0230208 m		WELDING-CLASS 'B' OF AA0621104		GAS CUTTING-TABLE 3 OF AA0621101									
REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED	DEPT	STE	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM No.	NO. OF ITEMS
		CHECKED			CHECKED			CHECKED	CODE 4011		N.T.S	-	-	-	75 77
TITLE: ELECTRO HYDRAULIC GOVERINNG (EHG) SYSTEM FOR 200/210 MW LMZ RUSSIAN DESIGN ST										CARD CODE		DRAWING NO. 3-11400-10005		- 22 23 24	
										SHEET No. 3		No. OF SHEETS 4			

SIZE A3

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3-11400-10005

DRAWING No.


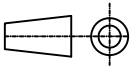
J. PACKING & TRANSPORTATION:-

1. ALL THE EQUIPMENTS SHALL BE SUITABLY PROTECTED, COATED OR BOXED (SEA WORTHY PACKING) AND CRATED TO PREVENT DAMAGE OR DETERIORATION DURING TRANSIT, HANDLING AND STORAGE AT SITE TILL THE TIME OF ERECTION. THE VENDOR SHALL PROVIDE THE SITE STORAGE INSTRUCTION APPLICABLE FOR THE EQUIPMENT AFTER IT ARRIVES AT THE SITE. LIFTING POINTS & LUGS SHALL BE CLEARLY IDENTIFIED.
2. PAINTING SCHEME ALONG WITH RELEVANT TECHNICAL DETAILS FOR ALL THE OFFERED EQUIPMENTS SHALL BE FURNISHED BY THE VENDOR WITH THE OFFER FOR REVIEW AND APPROVAL BY BHEL.
3. VENDOR SHALL INTIMATE SHIPPING/DISPATCH PLAN OF THE OFFERED EQUIPMENT INCLUDING DETAILS OF EACH BOXES & SUB BOXES TO THE PURCHASER AT LEAST 2 MONTHS PRIOR TO DISPATCH. ONE COMPLETE SET OF PACKING LIST DULY INDICATING THEREIN THE DETAIL OF THE ITEMS, SHOULD BE PLACED INSIDE THE PACKING BOX FOR MATERIAL VERIFICATION AT SITE AND THREE COPIES OF THE SAME SHOULD BE FORWARDED TO THE PURCHASER FOR THEIR ADVANCE INFORMATION & RECORD. IN CASE, THERE IS ANY CHANGE IN THE SHIPPING PLAN SAME SHALL BE INFORMED TO THE PURCHASER WELL IN ADVANCE.

K. GENERAL REQUIREMENTS:-

1. VENDOR TO FURNISH THEIR TECHNICAL OFFERS FOR ALL THE ITEMS AS SPECIFIED IN THE SCOPE. ANY INFORMATION/CLARIFICATION TO AVOID ANY AMBIGUITY AT THE TIME OF EXECUTION OF THE CONTRACT MAY BE OBTAINED WELL IN ADVANCE BEFORE SUBMITTING THEIR TECHNICAL-CUM-PRICED OFFER;
2. VENDOR TO FURNISH 1 SET SPECIAL TOOLS & TACKLES FOR EACH PROJECT AS MENTIONED AGAINST CL. A-9.5 OF THIS DRAWING. HOWEVER IF THIS IS NOT QUOTED BY THE SUPPLIER IN THEIR OFFER AND ANY SPECIAL TOOL IS REQUIRED AT SITE AT ANY POINT OF TIME, THE SAME SHALL BE SUPPLIED BY THE VENDOR FREE OF COST;
3. SHIPPING/DISPATCH PLAN OF THE OFFERED EQUIPMENT INCLUDING EACH BOX & THE SUB-BOXES DETAIL SHALL BE FURNISHED ALONG WITH THE OFFER;
4. ANY CLARIFICATION/DEVIATION IN RESPECT OF THE ABOVE IS TO BE BROUGHT TO THE NOTICE OF BHEL WELL IN ADVANCE & TAKE NECESSARY APPROVAL FROM BHEL. NO DEVIATION WILL BE ALLOWED AFTER PLACEMENT OF ORDER;
5. SINCE SUPERVISION DURING DISMANTLING, ERECTION & COMMISSIONING IS ENVISAGED IN THE VENDOR'S SCOPE, THE VENDOR TO MAKE A VISIT OF 2-3 DAYS TO PROJECT SITE AT A SUITABLE POINT OF TIME TO STREAMLINE ALL THE ERECTION & COMMISSIONING ACTIVITIES OF THEIR SUPPLIED EQUIPMENTS AND TO ENSURE COMPLETENESS OF ALL EQUIPMENTS/TOOLS ETC, WHICH ARE REQUIRED FOR COMMISSIONING OF THE EQUIPMENTS;

MAT. CODE : W90311400124

		GMS No./ C B O M		STATUS OF DRG		TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT								
		AGREED DEPT	NAME	SIGN	DATE	STEAM TURBINE								
		CIE	S.K.D	-SD-	06.04.15									
		GRADE OF UNTOL. DIM				 BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR		NAME	SIGN	DATE	NO. OF VAR - 73 74			
		M/CG.- AA0230208 m						DRN	LOKESH	-sd-		03.04.15		
		WELDING-CLASS 'B' OF AA0621104						CHD	D.K/L.S	-sd-		04.04.15		
		GAS CUTTING-TABLE 3 OF AA0621101						APPD	R.RAWAT	-sd-		06.04.15		
REV	DATE	ALTERED		REV	DATE	ALTERED		DEPT STE		SCALE N.T.S	WEIGHT (KG) -	REF. TO ASSY. DRG. -	ITEM No. -	NO. OF ITEMS - 75 77
		CHECKED				CHECKED								
Inventory No								TITLE: ELECTRO HYDRAULIC GOVERINNG (EHG) SYSTEM FOR 200/210 MW LMZ RUSSIAN DESIGN ST		CARD CODE	DRAWING NO. 3-11400-10005		-	
											SHEET No. 4		No. OF SHEETS 4	

DRAWING No.

CONTROL & INSTRUMENTATION TECHNICAL REQUIREMENTS (addendum to specification 31140010005):-



1. LATEST STATE OF ART MICROPROCESSOR BASED DIGITAL CONTROL, MONITORING & INFORMATION SYSTEM (DDCMIS) SHALL BE PROVIDED COMPRISING :
- A. CONTROL SYSTEM FOR TURBINE ELECTRO HYDRAULIC GOVERNING & PROTECTION SYSTEM AND AUTOMATIC TURBINE TESTING FOR VALVES/PROTECTIVE DEVICES. COMPLETE SYSTEM(BY BIDDER) WILL BE OPERATED FROM BHEL HMI THROUGH HARDWIRED SIGNALS. NECESSARY PROVISION FOR HARDWIRE INTERFACE TO BE KEPT IN BIDDER SYSTEM . ALARMS SIGNALS FROM DIGITAL ELECTRO HYDRAULIC CONTROL SYSTEM BY BIDDER TO BHEL DCS SHALL ALSO BE THROUGH HARDWIRED ONLY.
- B. HUMAN MACHINE INTERFACE & PLANT INFORMATION SYSTEM INCLUDING SERVER/WORKSTATION :ONE SET (ONE ENGINEERING & ONE OPERATING STATION)
- C. DATA COMMUNICATION SYSTYEM : ONE SET
- D. OTHER INTERFACE REQUIRED FROM BIDDER CONTROL SYSTEM TO BHEL DCS :PROVISION FOR REDUNDANT OPC –AE/UA LINK
- E. OTHER INTERFACE REQUIRED FROM BIDDER CONTROL SYSTEM TO BHEL MASTER CLOCK:MAXIMUM 2 NOS IRIG–B(AM) TIME SYNCHRONISATION SIGNAL TO BE PROVIDED
- F. SYSTEM PROGRAMMING, DIAGNOSTICS & DOCUMENTATION FACILITY : ONE SET (WITH LICENSED SOFTWARE)
- G. MARSHALLING CABINET & CONTROL SYSTEM CABINETS : ONE SET
- H. ELECTRICAL OVER SPEED PROTECTION INCLUDING 3 NO OF SPEED DETECTORS : ONE SET
- I. POSITION FEED BACK TRANSDUCER / CONTROL VALVE & STOP VALVE : 2 NOs FOR EACH CONTROL VALVE & 1 NO FOR EACH STOP VALVE.
2. FACTORY ACCEPTANCE TEST (FAT) WILL BE WITNESSED BY BHEL & END CUSTOMER, PROCEDURE OF FAT TO BE SUBMITTED & SHALL BE APPROVED BY END CLIENT.
3. THE FOLLOWING DOCUMENTS TO BE SUBMITTED ALONG WITH OFFER:
- (A) CONTROL SYSTEM ARCHITECTURE (B). PANEL SCHEMATIC DIAGRAM ALONG SHOWING FIELD INSTRUMENTS/DRIVES. (C) INSTRUMENT LIST. (D) DRIVE LIST.
- 4.CONTROL SYSTEM ACCURACY & RESPONSE TIME SHALL BE WELL PROVEN FOR EHG APPLICATION. DATA SHEET OF I/O MODULES & PROCESSOR TO BE SUBMITTED
5. REDUNDANCY IN CONTROL SYSTEM : INPUT /OUTPUT MODULES, PROCESSOR, POWER SUPPLY , BUS SYSTEM ETC.
6. C&I CONFIGURATION DIAGRAM SHALL BE FINALIZED DURING DETAIL ENGINEERING STAGE.
7. SYSTEM SHALL BE DE ENERZISED TO TRIP.
8. TYPE TEST SHALL BE AS PER ANNEXURE –A
9. AMC , TRAINING & WARRANTY SPARE TO BE QUOTED
10. AUTHORIZATION –TO–SHIP TEST(ATST) OR FACTORY ACCEPTANCE TEST SHALL INCLUDE TESTS TO FULLY DEMONSTRATE TO BHEL/END CUSTOMER SATISHFACTION THAT EACH EQUIPMENT/SUBSYSTEM AS WELL AS SOFTWARE MODULES IN CONTROL SYSTEM, FULLY MEET THE FUNCTIONAL/ PARAMETRIC REQUIREMENT(AS PER ANNX–B).
- 11.FUNCTIONAL GROUPING OF OFFERED CONTROL SYSTEM SHALL BE AS PER ANNEXURE –C
12. ALL HARDWIRED & SOFTWARE REQUIRED FOR COMPLETENESS OF THE SYSTEM SHALL BE DEEMED TO BE IMPLEMENTED IN BIDDER'S SCOPE.

-- Ref.Drawing No>

Sign & Date

Inventory No

GRADE OF UNTOL. DIM						
M/CG.— AA0230208 m						
WELDING—CLASS 'B' OF AA0621104						
GAS CUTTING—TABLE 3 OF AA0621101						
REV	DATE	ALTERED	REV	DATE	ALTERED	
		CHECKED			CHECKED	

NAME OF CUSTOMER/PROJECT				STEAM TURBINE				
		BHARAT HEAVY ELECTRICALS LTD. RANIPUR, HARDWAR		DRN	NAME	SIGN	DATE	NO. OF VAR — 73 74
				CHD	SK DAS	—sd—	16.4.15	
				APPD	KB BATRA	—sd—	16.4.15	
DEPT	STE		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.		ITEM No.	NO. OF ITEMS
CODE	4011		N.T.S	—	—		—	— 75 77
TITLE:				CARD CODE	DRAWING NO.			— 7 22 23 24
ADDENDUM TO SPECIFICATION								
31140010005								
				SHEET No.		1	No. OF SHEETS	1

SIZE A3

ANNEXURE -A

For the type tests to be conducted, Bidder shall submit detailed test procedure for approval by Employer. This shall clearly specify test setup, instruments to be used, procedure, acceptance norms (wherever applicable), recording of different parameters, interval of recording precautions to be taken etc. for the tests to be carried out.

SPECIAL REQUIREMENT FOR SOLID STATE EQUIPMENTS/ SYSTEMS

The minimum type test reports, over and above the requirements of above clause, which are to be submitted for each of the major C&I systems shall be as indicated below:

- i) Surge Withstand Capability (SWC) for Solid State Equipment/ Systems All solid state systems/ equipment shall be able to withstand the electrical noise and surges as encountered in actual service conditions and inherent in a power plant. All the solid state systems/ equipment shall be provided with all required protections that needs the surge withstand capability as defined in ANSI 37.90.1/ IEEE-472. Hence, all front end cards which receive external signals like Analog input & output modules, Binary input & output modules etc. including power supply, data highway, data links shall be provided with protections that meets the surge withstand capability as defined in ANSI 37.90.1/ IEEE-472. Complete details of the features incorporated in electronics systems to meet this requirement, the relevant tests carried out, the test certificates etc. shall be submitted along with the proposal. As an alternative to above, suitable class of EN 61000-4-12 which is equivalent to ANSI 37.90.1/ IEEE-472 may also be adopted for SWC test.
- ii) Dry Heat test as per IEC-68-2-2 or equivalent.
- iii) Damp Heat test as per IEC-68-2-3 or equivalent.
- iv) Vibration test as per IEC-68-2-6 or equivalent.
- v) Electrostatic discharge tests as per EN 61000-4-2 or equivalent.
- vi) Radio frequency immunity test as per EN 61000-4-6 or equivalent.
- vii) Electromagnetic Field immunity as per EN 61000-4-3 or equivalent.

Test listed at item no. v, vi, vii, above are applicable for electronic cards only as defined under item (i) above.

ANNEXURE B

On the bidder's supplied Control system, the following parametric tests shall also be conducted under worst case loading conditions (details of worst case loading shall be as agreed during detailed engineering.)

(i) For control system

- CPU loading, Cycle time/controller reaction time

(ii) For MMIPIS

- CPU loading, spare duty cycle, Memory Spare Capacity (if applicable as per standard practice of bidder)

(iii) Spare duty cycle for system bus (if applicable as per standard practice of bidder)

(iv) Various display response time

(v) System accuracy

(vi) Display update time

For the parametric test, the following requirements shall be met :

(i) **Processor Spare Duty Cycle (Free Time)**

- Under worst case loading of MMIPIS and system bus each MMIPIS processor shall have 40% free time when measured over any two second period and 50% free time when measured over any one minute period. (if applicable as per standard practice of bidder)- Under worst case loading conditions of control system, control system processor shall have 20% free time when measured over any one minute period.

- The Bidder shall furnish all necessary data to fully satisfy the Employer that the processor spare duty cycle figures quoted by the Bidder are realistic and based on configuration and computation capability of the offered system and these shall be actually achieved in the fully implemented system as commissioned at project site.

(ii) **System Bus Spare Duty Cycle (Free Time)**

The system bus shall have min. 50% free time during the worst case loading conditions of control system, MMIPIS and the system Bus, measured over any 2 seconds interval. (if applicable as per standard practice of bidder)

(iii) **Response Time**

(a) Display:

The time from mouse click or last button pressed to the commencement of the requested display under the worst case loading conditions shall not be worse than the following:

- All control related displays :2 sec Point
- Details Display(single point) : 1-2 secs
- Bar chart display (20 points, current data) : 2-3 secs.
- Operator guide/plant start-up guide message display (full screen of alphanumeric information and a maximum of ten numbers of dynamic data items) :1-2 secs.

- Plant mimic display of fair complexity with a minimum of 120 numbers of dynamic data items e.g., values, macros, line segment, etc. : 2-3 secs.
- Group review display (current values of twenty points) 2-3 secs.
- X-Y plot display (2 X-Y- plots and a single display requiring both historical as well as current data) : 3-4 secs.
- X-T plot display (Trend of 6 analog points and a single display requiring both historical as well as current data) :3-4 secs.
- Plant Summary display (e.g., bad point summary, limit check removed point summary. Assume the whole data base search is required and the summary display contains ten points only). : 3-4 secs.

•
(b) Command:

The response time for screen update, after the execution of the control command, from the time the command is issued (for example command to start a motor to the time the screen is dated) shall be within two seconds (excluding the drive actuation time).

(iv) System Accuracy Requirements

The overall system accuracy from signal input terminals to output presentation on display and printers shall meet process requirement as agreed during detailed engineering.

(v) Display Updated Rates

All displays shall be updated at least every two seconds.

To ensure availability, adequate redundancy in system design shall be provided at Hardware, software and sensor level to satisfy the availability criterion mentioned above. For the protection system, sensing device as per Bidder standard and proven practice shall provided to ensure adequate safety of plant equipment.

ANNEXURE –C

Turbine Digital Electro hydraulic control system ,Turbine protection system & Automatic Turbine testing will be realized one or more Functional Groups (FG) as per bidder's standard practice. For each of the FGs, separate sets of controllers, I/O modules, communication controllers, power packs/ modules, etc .shall be provided. Mixing of hardware of two or more FGs shall not be acceptable. It shall be ensured that failure of any set(s) of hardware of any FG does not affect other FG(s) and data communication between other FG(s) and HMIPIS. Each FG can have one or more set of controllers, if supported by standard design of system.

- The bidder shall provide all hardware/software, to fully meet operational/ maintenance/safety requirement as well as statutory/international standard and proven practices.
- The Control System shall function reliably under the environmental condition. It shall be immune from the interference resulting from disturbances in power supply feeders ,signal lines, inputs, outputs, etc. as experienced in a coal fired power station. It shall be able to withstand power line disturbances.
- The system shall have the flexibility to easily reconfigure any controller at any time without requiring additional hardware or system wiring changes and without disabling other devices from their normal operation mode. Modifications shall not require switching off power to any part of the system.
- Power supply to individual functional group shall be from redundant 24V feeders with diode auctioneering and further sub-distribution.
- The assignment of I/O channels for Inputs/Outputs, arrangement of modules within cabinet etc. shall be identical for all units except those inputs/outputs which are common for all units. Further uniformity should be maintained for redundant stream of process equipment within a unit.
- The application programs for the functional controllers shall be software based which shall be maintained even through power supply failure.
- Independent and dedicated controllers (main and its 100% standby) shall be provided for each of the Functional Group (FG) of Control System except for the cases where triple redundant controllers are to be used which shall be as per bidder's standard and proven practice. All the 100% hot/redundant backup controllers shall be identical in hardware and software implementation to their corresponding main controllers and shall be able to perform all its tasks. The backup controller shall track its corresponding main controller. There shall be an automatic and bump less switchover from the main controller to its corresponding backup controller in case of main controller failure and vice versa without resulting in any change in control status. In case of switchover from main controller to the 100% hot backup controller, the back-up controller shall work as the main controller. Further, when only one controller is working and other controller is inserted online (for example after repair / replacement), there should not be any degradation in the function of the working controller and control operation.
- The control system hardware design shall be such that it is able to withstand power line disturbances.
- The loop/logic reaction time shall be suitable to match actual process requirements, subject to minimum requirement wherever specified.

MANUFACTURER'S NAME AND ADDRESS			QUALITY PLAN				TO BE FILLED BY BHEL		TO BE FILLED BY BHEL				
BHEL	VENDOR'S NAME	ITEM			QP NO.								
				REV									
		DRG. NO.	AS PER PO										
		SPEC.	AS PER PO										
		REV				Page 1 of 1							
SL. NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY			REMARKS	
									M	B	N		
1	2	3	4	5	6	7	8	9	D	10		11	

MANUFACTURER/SUBCONTRACTOR		LEGEND:	FOR CUSTOMER USE	
		! RECORDS IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY CONTRACTOR IN QA DOCUMENTATION.		APPROVED BY
		M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY N: CUSTOMER INDICATE 'P' PERFORM 'W' WITNESS AND 'V' VERIFICATION ALL 'W' INDICATED IN COLUMN 'N' SHALL BE 'CHP' OF CUSTOMER		

	<p style="text-align: center;">Annexure-III</p> <p style="text-align: center;">GUIDELINES TO FOREIGN SUPPLIERS FOR FILLING UP SUPPLIER REGISTRATION FORM</p>	Document No.	AA:MM:SR:01
		Revision No.	01
		Page No.	I of II

1. Prospective Suppliers may also visit our web site www.bhel.com (link Supplier Registration -> New Supplier Required) to know more about the requirement of new suppliers for various items in our units.
2. Registration Form no. SRF(F)01 may be obtained from BHEL website www.bhel.com.
3. Application for registration, with a covering letter detailing where your products can find application (if possible) in BHEL unit(s), should be sent to:

Supplier Development Cell
Unit Name:
 Bharat Heavy Electricals Ltd.
City:
 India

4. In case registration is being sought in multiple units of BHEL, please send the separate application to each unit.
5. Any clarification with respect to procedure for registration may be obtained from the Supplier Development Cell of respective BHEL unit.
6. All columns are to be filled up properly in the space provided for. Wherever it is not applicable, mention it as "Not Applicable". The form is to be signed by the authorised signatory and submitted in original.
7. Please attach separate sheet if the space provided is insufficient. For any other information also, separate sheet may be attached.
8. Any information / clarification required by BHEL during processing of registration must be given expeditiously.
9. Please ensure that all required enclosures are attached with the filled up Supplier Registration Form and all enclosures are numbered & list of enclosures is given as required.
10. As multiple copies of the application forms are required for processing at our end, please do not spiral bound the application forms or its enclosures and instead send them in two hole clip flat file.
11. Please fill up the check- list given on next page and send along with the Supplier Registration Forms to BHEL.
12. Please note that if you are registered and participate in Tender process and qualify to get order from BHEL, your performance based on Quality of your product, delivery performance and service rendered will be evaluated inline with Chapter VI.
13. If you are attaching a document in a language other than English, a self attested English translated document may please be also attached.

	Annexure-III CHECK-LIST FOR FOREIGN SUPPLIERS REGISTRATION FORM	Document No.	AA:MM:SR:01
		Revision No.	01
		Page No.	II of II

S.N.	Check-Point	Yes/No
1.0	Information against all points in the Supplier Registration Form has been given.	
2.0	Authorisation letter has been enclosed (in case of Indian representative)	
3.0	Banker's certificate has been enclosed	
4.0	Are you an ISO: 9001 accredited supplier?	
4.1	If yes, have you enclosed copy of ISO 9001 accreditation certificate & "Table of Contents" of your Quality Manual?	
4.2	If no, have you enclosed written down procedure / manual of Quality Management System?	
5.0	Have you enclosed experience list/ performance certificate (as per sl. 3.0 of the form SRF(F) 01)	
6.0	List of enclosures has been furnished (as per Sl 5.0 of the form SRF(F) 01)	
7.0	All the parts of the form & enclosures have been signed by Authorised Signatory.	
8.0	D&B Report/ Creditreform report etc. has been attached.	

Signature & seal

Date :

(Authorised Signatory)

Note : This check list is to be attached with the filled up Supplier Registration Form.

BHARAT HEAVY ELECTRICALS LIMITED , INDIA

ANNEXURE- III

FORM NO. SRF(F)01 : (FOREIGN SUPPLIER)

Page 1 of 2

ALL THE PAGES OF THE FORM ARE TO BE SIGNED ALONGWITH SEAL BY THE AUTHORISED SIGNATORY

SUPPLIER REGISTRATION FORM	
1.0 GENERAL INFORMATION :	
1.1 NAME OF SUPPLIER : (TO BE REGISTERED)	
1.2 SUPPLIER ADDRESS : (TO BE REGISTERED)	
E - Mail :	
TELEPHONE : (Landline)-	Mobile
WEB SITE :	
1.3 DETAILS OF FACTORY / WORKS :	
ADDRESS :	
E - Mail :	
TELEPHONE : (Landline)-	Mobile
1.4 DETAILS OF MARKETING REPRESENTATIVE (OUTSIDE INDIA , IF ANY)	
ADDRESS :	
E - Mail :	
TELEPHONE : (Landline)-	Mobile
1.5 DETAILS OF INDIAN REPRESENTATIVE, IF ANY : (Attach authorisation letter)	
NAME :	
ADDRESS :	
E - Mail :	
TELEPHONE : (Landline)-	Mobile
1.6 CHIEF EXECUTIVE :	
1.7 YEAR OF ESTABLISHMENT :	
SUPPLIER'S AUTHORIZED SIGNATORY	
BHEL CERTIFIED ASSESSOR	

BHARAT HEAVY ELECTRICALS LIMITED , INDIA

ANNEXURE-III

FORM NO. SRF(F)01 : (FOREIGN SUPPLIER)

Page 2 of 2 amdt.-04

1.8 YEAR OF COMMENCEMENT OF BUSINESS :

1.9 PRODUCTION CAPACITY PER ANNUM (details of major manufacturing/ testing facilities to be given) :

1.10 PARTICULARS OF PRODUCTS INCLUDING SPECIFICATION AND RANGE OFFERED FOR REGISTRATION : (ATTACH BROCHURES AND CATALOGUES)

1.11 NAME (S) OF BANKERS :

1.12 BANKER'S CERTIFICATE AS TO CREDITWORTHINESS OF THE CLIENT
(Enclose Certificate) :

1.13 PORT OF LOADING :

1.14 NEAREST AIRPORT :

1.15 Report from D&B/ Creditreform etc. (As per Cl. 7.1 of Chapter V) (**MANDATORY**):

2.0 FINANCIAL INFORMATION : (FOR LAST 3 YEARS)

PARAMETER	YEAR -1	YEAR -2	YEAR -3
ANNUAL TURN OVER			
PROFIT AFTER TAX			

(COPY OF AUDITED ANNUAL ACCOUNTS FOR LAST 3 YEARS TO BE ENCLOSED)

3.0 QUALITY MANAGEMENT SYSTEM :

3.1 IS THE COMPANY ISO:9001 CERTIFIED : YES / NO

3.1.1 IF YES, ENCLOSE COPY OF CERTIFICATE & TABLE OF CONTENTS OF QUALITY MANUAL.

3.1.2 IF NO, ENCLOSE QUALITY MANAGEMENT SYSTEM OR WRITTEN DOWN PROCEDURE

4.0 EXPERIENCE LIST/ PERFORMANCE CERTIFICATE FOR OFFERED / SIMILAR ITEMS :
(ATTACH LIST OF PRESENT CUSTOMERS WITH NAME & ADDRESS FOR OFFERED / SIMILAR TYPE & SIZE OF ITEM / EQUIPMENT FOR WHICH REGISTRATION HAS BEEN SOUGHT AND WITH WHOM YOU HAVE CONTINUOUS BUSINESS SINCE LAST THREE YEARS)

5.0 IF REGISTERED IN ANY OTHER UNIT OF BHEL, PLEASE PROVIDE DETAILS:

6.0 ANY OTHER INFORMATION:

7.0 LIST OF ENCLOSURES :

(BROCHURES, CATALOGUES, TECHNICAL LITERATURE ETC.)

Signature & Seal

AUTHORISED SIGNATORY

E – Mail

NAME :


TELEPHONE : (Landline):

DESIGNATION :

Mobile :

DATE :

BHEL CERTIFIED ASSESSOR

	Annexure-II GUIDELINES TO INDIAN SUPPLIERS FOR FILLING-UP SUPPLIER REGISTRATION FORM	Document No.	AA:MM:SR:01
		Revision No.	01
		Page No.	I of II

- Prospective Suppliers may also visit our web site www.bhel.com (link Supplier Registration -> New Supplier Required) to know more about the requirement of new suppliers for various items in our units.
- Registration Form may be obtained from BHEL website www.bhel.com.
- Application for registration, with a covering letter detailing where your products can find application (if possible) in BHEL unit(s), should be sent to:

Supplier Development Cell
Unit Name:
Bharat Heavy Electricals Ltd.
City:
India


- In case registration is being sought in multiple units of BHEL, please send the separate application to each unit.
- Any clarification with respect to procedure for registration may be obtained from the Supplier Development Cell of respective BHEL unit.
- The Supplier Registration Form has four parts:

Part A	Organisational Information	Form no. SRF(I)01 – page 1 to 10
Part B	Quality System	Form no. SRF(I)01 - page 11 to 12
Part C	Technical Competence	Form no. SRF(I)01 page 13 (if sent by BHEL)
Part D	Score Sheet (to be filled by BHEL)	Form no. SRF(I)01 page 14 to 17

The set of formats to be filled by different category of suppliers is as follows:

Sl.No	Supplier Category	Formats
1.	Indian Suppliers (manufacturers)	- Organisational Information - Quality System - Technical Competence
2.	Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal	- Organisational Information SRF(I)01- Part A (page 1 to 10 except Sl. No. 5.1, 5.2, 6.6, 6.7, 7 & 8)

- All columns are to be filled up properly in the space provided for. Wherever it is not applicable, please mention “Not Applicable”. The form is to be signed by the authorised signatory.
- A separate sheet may be attached if the space provided is insufficient or additional information is to be given. Please put proper identification tag on the separately attached sheet.
- Please ensure that all required enclosures are attached with the filled up Supplier Registration Form and all enclosures are numbered & list of enclosures is given as required.
- As multiple copies of the application forms are required for processing at our end, please do not spiral bound the application forms or its enclosures and instead send them in two hole clip flat file.
- Incomplete forms will be rejected.
- Any information / clarification required by BHEL during evaluation must be given expeditiously.
- Please note that if you are registered and participate in Tender process and qualify to get order from BHEL, your performance based on Quality of your product, delivery performance and service rendered will be evaluated inline with Chapter VI.
- Please fill up the check- list given on next page and send along with the Supplier Registration Forms to BHEL.
- If you are attaching a document in a language other than Hindi/ English, a self attested Hindi/ English translated document may please be also attached.

	Annexure-II Check List for Indian Supplier Registration Form	Document No.	AA:MM:SR:01
		Revision No.	01
		Page No.	II of II

Sl.No.	Check-Point	Yes/No
1.	Information against all points under “Organizational Information” (Part-A) has been given.	
2.	All enclosures and supporting documents have been enclosed.	
3.	Summary list of enclosures has been furnished as per S.N.10 of Organisational Information form no. SRF (I) 01 & S.N 12 of Quality system form no. SRF (I) 01.	
4.	Are you an ISO 9001 accredited supplier?	
5.	If yes, have you enclosed "Table of Contents” of your Quality Manual and copy of ISO 9001 accreditation certificate?	
6.	Have you filled up Quality System format given in Part B?	
7.	Technical requirements, specifications, drawings, standards have been received from BHEL before filling up Technical Competence, Part C.	
8.	All the parts of the form & enclosures have been signed by Authorised Signatory.	
9.	Have you attached EFT details? (In original, Certified by the bank)	
10.	If you are seeking registration for a MSME company (as per MSME Act of Government of India), have you attached requisite certificate as per Act?	

Date :

Signature & seal

(Authorised Signatory)

Note: This check list is to be attached with the filled up Supplier Registration Form.

**BHARAT HEAVY ELECTRICALS LIMITED
SUPPLIER REGISTRATION FORM**

FORM NO. SRF(I) 01 (INDIAN SUPPLIER)

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INFORMATION WITH * MARKS IS SCOREABLE.

PART- A : ORGANISATIONAL SOUNDNESS

ALL COLUMNS SHOULD BE PROPERLY FILLED IN THE SPACE PROVIDED FOR, WHEREVER IT IS NOT APPLICABLE, PLEASE WRITE "NOT APPLICABLE". INCOMPLETE OR INCORRECT FORMS MAY NOT BE CONSIDERED. **PLEASE ATTACH SEPARATE SHEET, IF SPACE AVAILABLE IS INADEQUATE.**

ALL THE PAGES OF THE FORM ARE TO BE SIGNED ALONGWITH SEAL BY THE AUTHORISED SIGNATORY

ORGANISATIONAL INFORMATION			
NAME AND CORRESPONDENCE ADDRESS OF THE SUPPLIER SEEKING REGISTRATION :-			
1.0 PRODUCTS / SYSTEMS / SERVICES FOR WHICH REGISTRATION IS APPLIED FOR :			
SL. NO.	DESCRIPTION	SIZE & RANGE	MFG. STD/ IS / DIN /BS ETC.
SUPPLIER'S AUTHORISED SIGNATORY		BHEL CERTIFIED ASSESSOR	

**BHARAT HEAVY ELECTRICALS LIMITED
SUPPLIER REGISTRATION FORM**

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ORGANISATIONAL INFORMATION

2.0 GENERAL INFORMATION :

2.1 NAMES OF THE WORKS/DIVISION (Products manufactured at each works to be mentioned :

ADDRESS :
E - Mail :
TELEPHONE : Landline
Mobile
FAX :

2.2 NAME OF CHIEF EXECUTIVE /
PROPRIETOR / PARTNER & ADDRESS :

2.3 DETAILS OF AUTHORISED SIGNATORY FOR SEEKING CLARIFICATION :

NAME :
DESIGNATION :
E - Mail :
TELEPHONE : Landline
Mobile
FAX :

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED
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ORGANISATIONAL INFORMATION

3.0 OWNERSHIP INFORMATION : DOCUMENTS TO BE FURNISHED

3.1 GOVT. OF INDIA UNDERTAKING:

OR

STATE GOVT. UNDERTAKING :

OR

LIMITED COMPANY, :

MEMORANDUM AND
ARTICLES OF ASSOCIATION

OR

PRIVATE COMPANY :

MEMORANDUM AND
ARTICLES OF ASSOCIATION

OR

CO-OPERATIVE SOCIETY, :

SOCIETY RULES AND
BYE LAWS

OR

PARTNERSHIP FIRM, :

PARTNERSHIP DEED

OR

PROPRIETORSHIP, :

PROFESSION TAX REGN.
AND MUNICIPAL REGN.

ANY OTHER (SPECIFY) :

3.2 NATURE OF BUSINESS :
(MANUFACTURING UNIT/
ENGG CONSULTANT/ EPC CONTRACTOR)

(AGENTS/ DISTRIBUTORS/STOCKISTS/DEALERS/
TRADERS/ INDIAN SUBSIDIARY/ CHANNEL PARTNER – attach authorization
certificate of principal)

3.3 YEAR OF ESTABLISHMENT :

* 3.4 YEAR OF COMMENCEMENT OF BUSINESS :

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED
SUPPLIER REGISTRATION FORM**

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ORGANISATIONAL INFORMATION

4.0 REGISTRATION PARTICULARS

(FURNISH DETAILS AND ENCLOSE COPY OF CERTIFICATE FOR THE FOLLOWING)

4.1 PERMANENT ACCOUNT NO :
4.2 CENTRAL SALES TAX REGN NUMBER :
4.3 STATE SALES TAX / TIN NUMBER :
4.4 EXCISE DUTY REGN NUMBER :
4.5 EXCISE CONTROL CODE NUMBER :
4.6 SERVICE TAX REGN NUMBER :
4.7 CATEGORY AS PER MSMED ACT : MICRO/ SMALL/ MEDIUM
REGN NO. :
VALID UPTO :
(Attach Certificate)

5.0 TOTAL ORGANISATIONAL STRENGTH : (ATTACH ORGANISATION CHART)

	GRADUATE	DIPLOMA	SKILLED	NON-SKILLED
ENGINEERING :				
MANUFACTURING :				
QUALITY :				
COMMERCIAL / SERVICE AFTER SALES :				
OTHERS :				
TOTAL :				
* 5.1 POWER BACKUP : (GIVE DETAILS)	YES/ NO			
* 5.2 DOES THE COMPANY SELL ITS PRODUCT DIRECTLY : YES/ NO				

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED
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ORGANISATIONAL INFORMATION

6.0 OTHER PARTICULARS :

(FURNISH DETAILS AND ENCLOSE DOCUMENTARY EVIDENCE/ COPY OF CERTIFICATE FOR THE FOLLOWING)

* 6.1 IF THE COMPANY IS ALREADY REGISTERED WITH ANY OF BHEL UNITS, GIVE :

6.1.1. BHEL UNIT'S NAME :

6.1.2. SUPPLIER REGN. CODE NO. :

6.1.3. ITEMS FOR WHICH REGISTERED & THEIR SPECIFICATION
(ENCLOSE PROOF OF SUCCESSFUL EXECUTION OF
ONE OR MORE PURCHASE ORDERS) :

* 6.2 IS THE COMPANY APPROVED BY
ASME / NTPC / NPC / EIL / DGS&D / RAILWAYS /
IBR / LLOYDS ETC FOR INTENDED
MATERIAL CATEGORY? : YES / NO
(ENCLOSE DOCUMENTARY EVIDENCE)

* 6.3 IS THE COMPANY ISO 9001 APPROVED? : YES / NO
(ENCLOSE CERTIFICATE & TOC OF QUALITY SYSTEM) :

* 6.4 IS THE COMPANY AN ISO 14000 APPROVED? : YES / NO
(ENCLOSE CERTIFICATE) :

* 6.5 IS THE COMPANY OHSAS - 18000 APPROVED?: YES / NO
(ENCLOSE CERTIFICATE)

* 6.6 TECHNICAL COLLABORATOR :
(FOREIGN OR INDIGENOUS)
(ENCLOSE DOCUMENTARY EVIDENCE)

* 6.7 R&D SET UP

6.8 DIRECTORS / PARTNERS, IF RELATED TO ANY
BHEL EMPLOYEE.
NAME :
STAFE NO. :
DESIGNATION :
Unit & DEPARTMENT :
RELATIONSHIP :

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED
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ORGANISATIONAL INFORMATION

6.9 IF ANY EX-BHEL PERSONNEL IS EMPLOYED BY THE COMPANY, MENTION HIS / HER DETAILS OF LAST POSTING.

NAME :
STAFF NO. :
DESIGNATION :
UNIT & DEPARTMENT :
DATE OF LEAVING SERVICE :

6.10 COMPANY'S WEEKLY HOLIDAYS :

WORKS OFFICE

6.11 EXPERIENCE LIST:

(ATTACH LIST OF PRESENT CUSTOMERS WITH NAME & ADDRESS FOR OFFERED / SIMILAR TYPE & SIZE OF ITEM / EQUIPMENT FOR WHICH REGISTRATION HAS BEEN SOUGHT AND WITH WHOM YOU HAVE CONTINUOUS BUSINESS SINCE LAST THREE YEARS . ALSO ATTACH PERFORMANCE CERTIFICATES ISSUED BY ANY TWO CLIENTS FOR SUCCESSFUL EXECUTION OF THE CONTRACTS FOR LAST TWO YEARS- FOR PEM)

*6.12 DETAILS OF PENDING LEGAL ISSUES ON CONTRACTUAL ASPECTS WITH CUSTOMER , IF ANY

6.13 The following information of Bank Account of the Company, duly endorsed by the Bank (required for Electronic Fund Transfer –EFT/RTGS) is to be submitted

1. Name of the Company
2. Name of Bank
3. Name of Bank Branch
4. City/Place
5. Account Number
6. Account type
7. IFSC code of the Bank Branch
8. MICR Code of the Bank Branch
9. Details of other Bankers (for reference purpose only)

NOTE :

Suppliers who have already submitted the above information are requested to submit a copy of the same.

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED
SUPPLIER REGISTRATION FORM**

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ORGANISATIONAL INFORMATION

7.0 MANUFACTURING FACILITIES:

***7.1 LIST OF MANUFACTURING FACILITIES/EQUIPMENTS (INCLUDING MATERIAL HANDLING FACILITY)**

SL. NO	DESCRIPTION OF MACHINE/EQUIPMENT	QUANTITY	MAKE & YEAR OF INSTALLATION	REMARKS

IN CASE OF SPACE LIMITATION, PLEASE ENCLOSE ANNEXURE / CATALOGUE WITH TAG

*** 7.2 IF IN-HOUSE MFG FACILITIES NOT AVAILABLE, INFORM SOURCE OF MFG. DETAILS ALONGWITH THEIR FACILITIES & EXPERIENCE**

SL. NO	PROCESS OUTSOURCED	NAME OF THE COMPANY	DESCRIPTION OF MACHINE / EQUIPMENT	REMARKS

IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG

*** 7.3 RATIO OF OUTSOURCED COST TO TOTAL PRODUCTION VALUE:**

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED
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8.0 INSPECTION & TESTING FACILITIES:

*** 8.1 LIST OF INSPECTION & TESTING FACILITIES / EQUIPMENT**

SL. NO	DESCRIPTION OF FACILITY/ EQUIPMENT & CAPACITY	NOS.	MAKE & YEAR OF MANUFACTURING	LAST DATE OF CALIBRATION
IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG				

*** 8.2 IF IN-HOUSE TESTING FACILITIES NOT AVAILABLE, INDICATE SOURCE OF TESTING ALONGWITH THEIR FACILITIES & EXPERIENCE**

SL. NO	TEST	SOURCE OF TESTING	DESCRIPTION OF FACILITY/ EQUIPMENT & CAPACITY	APPROVAL OF EQUIPMENT/ PROCESS/PERSONNEL QUALIFICATION
IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG				

Note:

In case of outsourcing of major testing such as NDT, Electrical & Mechanical Testing, no marks will be awarded. However, material composition testing by chemical method from recognized laboratory shall not attract negative marking

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

BHARAT HEAVY ELECTRICALS LIMITED

SUPPLIER REGISTRATION FORM

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ORGANISATIONAL INFORMATION					
FINANCIAL INFORMATION FOR THE PREVIOUS FOUR YEARS					
9.0	Parameter	Year 1	Year 2	Year 3	Year 4
		(Years in ascending order, Money value in Rs. Lakhs)			
* 9.1	NET WORTH (Share Capital +Reserves)				
	Growth over previous year (%)	-----			
9.2	LONG TERM DEBT / LOAN				
* 9.3	DEBT EQUITY RATIO Long term Debt (9.2) Net worth (9.1)				
9.4	INVESTMENT IN: Land & Building				
	Plant & Machinery				
	Other Fixed Assets				
9.5*	NET CURRENT ASSETS a) Cash on hand				
1	b) Account receivable				
	c) Inventories				
	Total				
	CURRENT LIABILITY a) Sundry creditors				
2	b) Interest accrued but not due				
	c) Other liabilities				
	Total				
3	* QUICK RATIO CA - INVENT. {9.5(1)-9.5(1)c} Current liability {9.5 (2)}				
* 9.6	SALES				
	Growth over previous year (%)	-----			
* 9.7	PROFIT BEFORE TAX				
	Growth over previous year (%)	-----			
* 9.8	Whether the supplier has been referred to BIFR / NCLT / any other Govt agency (If YES , enclose details)				YES / NO
* 9.9	Whether the supplier is a potential sick company.(If YES , enclose details)				YES / NO
<p>NOTE: 1. Copies of annual accounts (Balance Sheet) for the last four years (or from date of incorporation which ever is less) along with audit report are to be submitted. The above details shall be highlighted in the Balance Sheet.</p> <p>2. Status of Tax assessments done under various laws (Income Tax, VAT/Sales Tax, Excise & Service Tax, Custom) and details of disputes pending, if any, with these authorities to be submitted.</p>					
SUPPLIER'S AUTHORISED SIGNATORY			BHEL CERTIFIED ASSESSOR		

BHARAT HEAVY ELECTRICALS LIMITED SUPPLIER REGISTRATION FORM

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ORGANISATIONAL INFORMATION

10. LIST OF ENCLOSURES (Tags to be put on enclosures) :

- | | | |
|--------|---|------------|
| (i) | MEMORANDUM AND ARTICLES OF ASSOCIATION / SOCIETY RULES AND BYE LAWS / PARTNERSHIP DEED/ PROFESSION TAX REGN & MUNICIPAL REGN. | : YES / NO |
| (ii) | Copy of certificate of following:- | |
| | • PERMANENT ACCOUNT NO | : YES / NO |
| | • CENTRAL SALES TAX REGN NUMBER | : YES / NO |
| | • STATE SALES TAX / TIN NUMBER | : YES / NO |
| | • EXCISE DUTY REGN NUMBER | : YES / NO |
| | • EXCISE CONTROL CODE NUMBER | : YES / NO |
| | • SERVICE TAX REGN NUMBER | : YES / NO |
| | • REGN NUMBER OF CATEGORY AS PER MSMED ACT | : YES / NO |
| (iii) | ORGANISATION CHART | : YES / NO |
| (iv) | If registered with any other BHEL Unit, | |
| | • LETTER OF REGISTRATION WITH BHEL UNIT | : YES / NO |
| | • PROOF OF SUCCESSFUL EXECUTION OF ONE OR MORE PURCHASE ORDERS | : YES / NO |
| (v) | Letter of approval from ASME / NTPC / NPC / EIL / DGS&D / RAILWAYS /IBR / LLOYDS ETC | : YES / NO |
| (vi) | Accreditation certificate for | |
| | • ISO: 9001 | : YES / NO |
| | • TOC of Quality System Manual | : YES / NO |
| | • ISO : 14000 | : YES / NO |
| | • OHSAS , ISO 18000 | : YES / NO |
| (vii) | Letter regarding technical collaboration | : YES / NO |
| (viii) | Experience List / Performance certificate | : YES / NO |
| (ix) | Balance Sheet for the last four years along with audit Report | : YES / NO |
| (x) | Principal's authorization in case of dealers/ agents | : YES / NO |
| (xi) | EFT Bank's certificate | : YES / NO |

I /WE GIVE THE UNDERTAKING THAT BHEL DRAWINGS & SPECIFICATIONs SHALL NOT BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF BHEL AND/ OR FOR SUPPLY OF ANY MATERIAL, PRODUCT OR SERVICES DIRECTLY OR INDIRECTLY TO ANY OTHER CUSTOMER.

Maximum Marks = 50

Negative Marks = -13

Minimum Qualifying marks = 30

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

BHARAT HEAVY ELECTRICALS LIMITED

SUPPLIER REGISTRATION FORM

FORM NO. SRF(I) 01 (INDIAN SUPPLIER)

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Part B (QUALITY SYSTEM):

Sl. No	PARAMETERS	SYSTEM IN EFFECT (Tick if exists & provide evidences if ticked in written procedure)		RECORDS (Tick if available & submit evidences)	REMARKS
		Written Procedure	Practice		
1*	Incoming Material Control System				Furnish a copy of system and organization.
2*	In process control				Furnish at least one work instruction & record of process control parameter
3*	Manufacturing / Testing Procedure Qualification				Procedure Qualification specification may be submitted
4*	Personnel qualification for 3 above.				Record of Personnel qualification (PQR) to be submitted
5*	Calibration system				Submit list of instrument & their calibration status
6*	System of Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc.				Copy of procedure to be submitted
7*	System of Storage, Preservation , Painting & packing				Copy of procedure to be submitted
8*	System of NCR disposition & corrective preventive action				Two copies of NCR & CAPA
9*	Customer complaints handling system				Submit list of customer complaints & status for the last three years
10*	Safety measures				Submit copy of safety system & Record of accidents for last three years
11	Any other quality initiative				

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

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Part B (QUALITY SYSTEM):

12. LIST OF ENCLOSURES

- (i) Copy of system of control incoming materials and organization chart
- (ii) Copy of at least one process control work instruction
- (iii) Record of process control parameter
- (iv) Copy of at least one Procedure Qualification specification
- (v) Record of Personnel qualification (PQR)
- (vi) List of instrument & their calibration status
- (vii) Copy of procedure for Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc.
- (viii) Copy of procedure for Storage/ preservation/ painting & packing
- (ix) Copies of two NCRs and their CAPA.
- (x) List of customer complaints & status for the last three years
- (xi) Copy of safety system
- (xii) Record of accidents for last three years

Maximum Marks = 25

Minimum Qualifying marks = 15

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

BHARAT HEAVY ELECTRICALS LIMITED

SUPPLIER REGISTRATION FORM

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FORM NO. SRF(I)01

Part C: TECHNICAL COMPETENCE

Technical competence shall be evaluated in two parts viz. common competence and product/material category specific competence.

(i) COMMON TECHNICAL COMPETENCE

TECHNICAL COMPETENCE (where design specification is given by BHEL)	MARKING RANGE	Marking range, if product specific technical competency not required	SUPPLIER RESPONSE (ALONG WITH SUPPORTING DOCUMENTS)#	MARKS BY BHEL
1. Supplier understands the product specification.	(0-3)	(0-8)		
2. Supplier understands the inspection requirements.	(0-2)	(0-5)		
3. Supplier has process capability to achieve the product specification/dimensional requirement.	(0-3)	(0-8)		
4. Supplier has experienced manpower to carry out the job.	(0-2)	(0-4)		
TOTAL MARKS OUT OF POSSIBLE	10	25		

OR

TECHNICAL COMPETENCE (where performance specification is given by BHEL)	MARKING RANGE	Marking range, if product specific technical competency not required	PROCEDURE		SYSTEM IN EFFECT		RECORDS	
			SUPPLIER RESPONSE (ALONG WITH SUPPORTING	MARKS BY BHEL	SUPPLIER RESPONSE (ALONG WITH SUPPORTING	MARKS BY BHEL	SUPPLIER RESPONSE (ALONG WITH SUPPORTING	MARKS BY BHEL
1. Design capability	(0-3)	(0-8)						
2. Adequacy of quality assurance plan	(0-2)	(0-5)						
3. Process capability for components	(0-3)	(0-8)						
4. Adequate of testing	(0-2)	(0-4)						
TOTAL MARKS OUT OF POSSIBLE Average of Total (Total/3) = -----	10	25						

(ii) PRODUCT/ MATERIAL CATEGORY SPECIFIC TECHNICAL COMPETENCE

(Max Marks: 15)

Unit MISCC to structure the parameters to be considered for the technical competence depending on material category. The score of individual parameter selected is to be decided by MISCC. MISCC shall identify the requirement of enclosures to be furnished by supplier.

Product:

Sl. No	Material category	Tech Parameter	Supplier's response	Remarks

To be filled up only on receipt of technical requirements/ specification, drawings, standards from BHEL and to be sent to BHEL for further scrutiny. Enclose documentary evidence where ever required.

LIST OF ENCLOSURES:

Maximum Marks = 25

Minimum Qualifying marks = 15

No marks is to be given by the supplier. Only supplier response along with supporting documents.

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

BHARAT HEAVY ELECTRICALS LIMITED SUPPLIER REGISTRATION FORM

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Part D : SCORE SHEET

1. ORGANISATIONAL SOUNDNESS (for Manufacturers):

S.N.	PARAMETER	CRITERIA	Maxm. Marks	Marks Awarded
1.	Whether all relevant information like ownership, PAN no., sales tax no., excise duty no., etc. submitted	Yes: 2 No: 0	2	
2.	3.4 YEAR OF COMMENCEMENT OF BUSINESS	More than 5 years : 2 1-5 years : 1 Less than 1 year : 0	2	
3.	5.1 POWER BACKUP	Yes : 1 No : 0	1	
4.	5.2 DOES THE COMPANY SELL ITS PRODUCT DIRECTLY	Yes : 1 No : 0	1	
5.	6.1 REGISTERED WITH ANY OF BHEL UNITS	Yes (same item) : 2 Yes (another item) : 1 No : 0	2	
6.	6.2 APPROVAL BY ASME/ NTPC/ NPC/ EIL/ DGS&D/ RAILWAYS/ IBR/ LLOYDS ETC	Yes : 2 No : 0	2	
7.	6.3 ISO 9001 ACCREDITATION	Yes : 3 No : 0	3	
8.	6.4 ISO 14000 ACCREDITATION	Yes : 1 No : 0	1	
9.	6.5 OHSAS - 18000 ACCREDITATION	Yes : 1 No : 0	1	
10.	6.6 TECHNICAL COLLABORATOR : (FOREIGN OR INDIGENOUS)	Yes : 1 No : 0	1	
11.	6.7 R & D SET UP	Yes : 1 No : 0	1	
12.	6.12 PENDING LEGAL ISSUES ON TECHNO – COMMERCIAL ASPECTS WITH CUSTOMER	Yes : -5 No : 0	0	
13.	7.1 & 7.2 MANUFACTURING FACILITIES INCLUDING OUTSOURCING	Adequate : 3 Substantial : 2 Inadequate : 0	3	
14.	7.3 RATIO OF OUTSOURCED COST TO TOTAL PRODUCTION VALUE	Less than 10% : 2 10 to 30 % : 1 More than 30% : 0	2	
15.	8.1 INSPECTION & TESTING FACILITIES	Adequate : 2 Substantial : 1 Inadequate : 0	2	
16.	8.2 OUTSOURCING OF MAJOR TESTING FACILITY (Refer Note)	Yes : 0 No : 1	1	
	TOTAL		25	

1. ORGANISATIONAL SOUNDNESS (for Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal):

S.N.	PARAMETER	CRITERIA	Maxm. Marks	Marks Awarded
1.	Whether all relevant information like ownership, PAN no., sales tax no., etc. submitted (clause 6.0 of chapter V to be referred in this regard)	Yes: 7 No: 0	7	
2.	3.4 YEAR OF COMMENCEMENT OF BUSINESS	More than 3 years : 2 1-3 years : 1 Less than 1 year : 0	2	
3.	6.1 REGISTERED WITH ANY OF BHEL UNITS	Yes (same item) : 2 Yes (another item) : 1 No : 0	2	
4.	6.2 APPROVAL BY ASME/ NTPC/ NPC/ EIL/ DGS&D/ RAILWAYS/ IBR/ LLOYDS ETC	Yes : 2 No : 0	2	
5.	6.3 ISO 9001 ACCREDITATION	Yes : 2 No : 0	2	
6.	6.12 PENDING LEGAL ISSUES ON TECHNO – COMMERCIAL ASPECTS WITH CUSTOMER	Yes : -5 No : 0	0	

BHEL CERTIFIED ASSESSOR

BHARAT HEAVY ELECTRICALS LIMITED SUPPLIER REGISTRATION FORM

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Part D: SCORE SHEET

2. FINANCIAL INFORMATION (for Manufacturers):

S.N.	PARAMETER	CRITERIA	Maximum Marks	Marks Awarded
1.	9.1 Growth of Net Worth over previous year (%) Average of three years to be worked out	More than 20 % : 5 10 – 20 % : 4 5 – 10 % : 3 > 0 & < 5 % : 2 0 or below : 0	5	
2.	9.3 DEBT EQUITY RATIO <u>Long term Debt (9.2)</u> <u>Net worth (9.1)</u>	1 : 1 : 5 1.1 upto 1.5 : 1 : 4 1.6 upto 2.0 : 1 : 3 2.0 & above : 1 : 2	5	
3.	9.5 QUICK RATIO <u>CA - INVENTORIES {9.5(1)-9.5(1)c}</u> Current liability {9.5 (2)}	1 : 1 : 5 1 : 1 upto 1.5 : 4 1 : 1.5 upto 1.75 : 3 1 : 1.75 upto 2.5 : 2 1 : > 2.5 : 0	5	
4.	9.6 Growth in Sales over previous year (%) Average of three years to be worked out	More than 35% : 5 20 -35 % : 4 10 – 20 % : 3 5 – 10 % : 2 > 0 & < 5 % : 1 0 or negative : 0	5	
5.	9.7 PROFIT BEFORE TAX Growth over previous year (%)	More than 20 % : 5 10 – 20 % : 4 5 – 10 % : 3 > 0 & < 5 % : 2 0 or below : 0	5	
6.	9.8 Whether the supplier has been referred to BIFR / NCLT/ any other similar Govt agency	Yes: -5 No : 0	0	
7.	9.9 Whether the supplier is a potentially sick company	Yes: -3 No : 0	0	
TOTAL			25	

Note: If the supplier is new in business and does not have past data, then the evaluation will be done on the basis of information provided by him and will be decided by MISCC.

2. FINANCIAL INFORMATION (for Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal):

S.N.	PARAMETER	CRITERIA	Maximum Marks	Marks Awarded
1.	9.6 Growth in Sales over previous year (%) Average of three years to be worked out	More than 35% : 5 20 -35 % : 4 5 - 20 % : 3 >0 - 5 % : 2 0 or negative : 0	5	
2.	9.7 PROFIT BEFORE TAX Growth over previous year (%)	More than 20 % : 5 5 – 20 % : 4 >0 – 5 % : 3 0 or below : 0	5	

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BHARAT HEAVY ELECTRICALS LIMITED

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Part D : SCORE SHEET

3. QUALITY SYSTEM :

S.N.	PARAMETER	CRITERIA	Maxm. Marks	Marks Awarded
1.	Incoming Material control System	System availability : Yes: 1 No : 0	1	
		Availability of Organisation chart Yes: 1 No : 0	1	
2.	Process control	Work instruction available: Yes: 1 No : 0	1	
		Record of process Control : Available : 2 Partial record : 1 Not available: 0	2	
3.	Manufacturing / Testing Procedure Qualification	Procedure Qualification Specification : Adequate : 3 In adequate: 1 Not available : 0	3	
4.	Personnel qualification	Record of PQR: Adequate : 3 In adequate: 1 Not available : 0	3	
5.	Calibration system	Adequate : 3 In adequate: 1 Not available : 0	3	
6.	System of Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc.	Procedure available : Adequate : 2 In adequate: 1 Not available : 0	2	
7.	System of Storage/ preservation/ painting & packing	Procedure available : Adequate : 2 In adequate: 1 Not available : 0	2	
8.	System of NCR disposition & corrective preventive action	Two copies of NCR & CAPA Available :2 Not available : 0	2	
9.	Customer complaints handling system	System available : Yes: 1 No : 0	1	
		Complaints registered & resolved : 2 Complaints registered & partially resolved : 1 Complaints not registered or not resolved : 0	2	
10.	Safety measures	System available : Yes: 1 No : 0	1	
		Record available : Yes: 1 No : 0	1	
	TOTAL		25	

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4. TECHNICAL COMPETENCE

	Maximum Marks (1)	Marks obtained (2)
A. Common Technical Competence		

And/ or

B. Product Specific Technical Competence

Column no. 1 to 4 to be filled by MISCC before sending to supplier. Column no. 5 to be filled by BHEL certified Assessor after evaluation of supplier response.

Sl. No (1)	Parameter (2)	Scoring criteria (3)	Maximum Marks (4)	Marks obtained (5)
	Sub-Total		15	

TOTAL (A+B):

25

()

SUMMARY:

Sl. No	Criteria	Maxm Marks	Qualifying marks *	Marks obtained	Recommendation for registration
1.	Organisational Soundness	50	30		Recommended : Permanent code /Development code/ Trial code Not recommended
	Financial Information				
2.	Quality System	25	15		
3.	Technical Competence	25	15		
	TOTAL	100	60		

***Minimum Qualifying Score in Each category shall be 60%.**

REGISTRATION CRITERIA:

Sl. No	Score	Recommendation
1.	More than 90	Supplier is to be registered and given Permanent code, Normally no visit is called for.
2.	>75 <=90	Supplier may be visited if recommended by MISCC or to be registered and given permanent code.
3.	>=60 <=75	Supplier may carry out suggested improvements if advised by MISCC Supplier's visit is mandatory. Trial/ Development code may be given.
4.	Less than 60	Not to be registered

Note: Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal are to be awarded marks on pro-rata basis and registered accordingly.

Signatures: MISCC and Suppler Evaluation Team (in case of visit)

1)

2)

3)

4)

5)

6)

BHEL CERTIFIED ASSESSOR

NON-DISCLOSURE AND PROPRIETARY INFORMATION AGREEMENT

BETWEEN

_____(Name of the Vendor),, having its registered offices in
_____(Address of Vendor), registered under the no. _____
of the Companies' register of _____(Name of Place and Country),
capital stock of _____(Value), with a place of business in
_____(Name of Place and Country) (hereinafter referred to as
"_____(Name of Vendor)");

AND

Bharat Heavy Electricals Ltd a company incorporated under the Indian Companies Act 1956 having its registered offices at BHEL House, Siri Fort, New Delhi -110 049 and having one of its works at Heavy Electrical Equipment Plant, Ranipur, Haridwar-249403 (Uttarakhand), India registered under the No. 4281 of 1964-65 of the companies register of Delhi, capital stock of Rs 4895.2 million with a place of registered office in New Delhi (hereinafter referred to as “BHEL”) hereinafter also referred to individually as “the Party” or collectively as “the Parties”.

BACKGROUND

This Agreement sets forth the rights and obligations of the Parties with respect to the use, handling, protection and safeguarding of Proprietary Information that is disclosed by and between the Parties.

WHEREAS

A) The Parties wish to pursue exploratory discussions concerning a possible collaboration between them in relation to the Program defined in Exhibit 1;

B) During the ensuing discussions and negotiations it may occur that either Party discloses to the other technical, financial or business information of a proprietary or confidential nature, which the Parties intend to protect against, making it available, by any means to any third person, and other unauthorized use and/or further disclosure by the recipient, in accordance with the terms and conditions set forth herein;

NOW, THEREFORE, the Parties have agreed as follows:

1. The term “Proprietary Information” shall mean any information or data of whatsoever kind of a confidential or proprietary nature, including but not limited to, commercial information, know how and technical information in the form of designs, drawings, concepts, requirements, specifications, software, interfaces, components, processes, or the like, that have been or will be disclosed by either Party to the other pursuant to this Agreement, either in writing, orally or other form, which is designated as “Proprietary” or “Confidential” by the disclosing Party by means of formal declaration or an appropriate stamp, legend or any other written or orally notice .
2. Proprietary Information may be conveyed, without limitation, through any written or printed documents, samples, models, electronic form on disk, tape, other storage media or any other means of disclosing such Proprietary Information that either Party may elect to use during the life of this Agreement, but if an originating Party originally discloses information orally or visually, the receiving Party will protect such information as Proprietary Information to the extent that the originating Party :
 - identifies the Information as Proprietary at the time of original disclosure,
 - summarizes the Proprietary Information in writing .

Information stored in electronic form on disk, tape, other storage media will be adequately marked if a proprietary legend displays when the information originally runs on a computer system and when the information is printed from its data file.

Proprietary Information also includes any information which can be obtained by examination, testing or analysis of any hardware or material substance or any component part of such hardware or material substance provided by the Disclosing Party even though the requirements in Clause 1 for marking and designation have not been fulfilled.

3. Each Party, to the extent of its rights to do so, shall disclose to the other only the Proprietary Information which the disclosing Party deems appropriate to fulfil the objectives of this Agreement. The Parties hereby represent that the disclosure of Proprietary Information by and between themselves shall be made in compliance with, and subject to the laws and regulations of the Disclosing Party's country.
4. The receiving Party hereby agrees and covenants that, from the effective date of this Agreement until the expiry date as per article 11 and the following period as per article 12, the Proprietary Information that either Party receives from the other shall:
 - a) be protected and kept in strict confidence by the receiving Party which must use the same degree of care it uses to protect its own confidential information and in no case less than a reasonable care;
 - b) be only disclosed to and used by those persons within the receiving Party's organization or that of its parent or controlled companies who have a need to know and solely for the purposes specified in this Agreement, and be treated by such persons or entities with the same degree of care and subject to the same restrictions;
 - c) to procure that each third party to whom Proprietary Information is disclosed under this Agreement is made aware of the provisions of this

Agreement prior to such disclosure to it and that each such third party is bound by obligations of confidentiality which are no less onerous than those contained in this Agreement;

- d) neither be disclosed nor caused to be disclosed or made available, either directly or indirectly, to any third Party or persons other than those mentioned in subparagraph b) above or other persons upon which both of the contractual Parties shall agree in an amendment to this Agreement;
- e) not to copy, reproduce or reduce to writing any part of such Proprietary Information except as may be reasonably necessary for the purpose referred to in the Recitals of this Agreement

PROVIDED THAT the Receiving Party shall be entitled to make any disclosure required by court order or government or regulatory requirement of the Disclosing Party's Proprietary Information subject to notifying the Disclosing Party as soon as possible of such requirement

- 5. Any Proprietary Information and copies thereof disclosed by either Party to the other shall remain the property of the disclosing Party and shall be immediately returned or destroyed by the receiving Party upon request.
- 6. The receiving Party shall have no obligations or restrictions with respect to any Proprietary Information for which the receiving Party can prove that:
 - a) is in or which comes into the public domain otherwise than as a result of a breach of this Agreement by any person to whom a disclosure of Proprietary Information is made as permitted under this Agreement or of any other duty of confidentiality relating to the Proprietary Information of which the Receiving Party has knowledge; or
 - b) it has been in its possession without restriction at the time of the disclosure, as evidenced by written documentation in its files; or

- c) it has been lawfully received from a third Party without breach of this Agreement; or
 - d) it has been or is published without violation of this Agreement; or
 - e) it has been independently developed in good faith by employees of the receiving Party who did not have access to the Proprietary Information; or
 - f) it has not been properly declared, designated or confirmed as Proprietary or Confidential; or
 - g) the protection period has expired according to articles 11 and 12 of this Agreement.
7. With respect to any exchange of Proprietary Information which may occur as a result of this Agreement, it is expressly understood and agreed that the persons listed in Exhibit 2 shall, on behalf of the respective Parties, be the exclusive individuals authorized to receive from and transmit to the other Party Proprietary Information under this Agreement. Each Party may replace at any time its respective authorized individuals identified in such Exhibit 2, within its own organization. Any such new designation by a Party shall be made by written notice to the other at the address indicated in such Exhibit 2.
8. Any Proprietary Information which is identified as “Classified Information”, or whose export is subject to an export license, shall be identified as such by the disclosing Party at the time of disclosure and the disclosure, protection, use and handling thereof, shall remain subject to the security procedures and restrictions imposed by the disclosing Party's Government.
9. The disclosure of Proprietary Information under this Agreement by either Party to the other shall not be construed as granting to the receiving Party any right, whether express or implied by licence or otherwise, on the matters, inventions or discoveries to which such information pertains, or as granting any trademark, patents, copyrights, trade secret right or other form of intellectual property right.

10. Nothing in this Agreement may be construed as an obligation of either Party to disclose any Proprietary Information to the other, or to enter into any subsequent contractual relationship with such other Party.
11. This Agreement covers the exchange of Proprietary Information which may be made by either Party to the other until ten years from signing of the agreement or any extension thereto which may be agreed upon by the Parties in writing. Proprietary information relevant to the Program detailed in Exhibit 1, already made available to the other contractual Party before the effective date, shall also be protected under this Agreement.

It is understood by the parties that, prior to disclosure, the Disclosing Party shall have obtained any government authorisation needed for the export of the Proprietary Information

12. The expiry of the period contemplated in Article 11 of this Agreement shall not relieve the receiving Party from complying with the obligations imposed by Article 4 here above with respect to the use and protection of the Proprietary Information, received prior the date of such expiry, for a period of ten (10) years after such expiry.
13. The Parties are independent contractors. Each will bear all costs and expenses in connection with this Agreement. This Agreement is intended to facilitate only the exchange of Proprietary Information and is not intended to be, and shall not be construed to create a teaming agreement, joint venture, association, partnership, or other business organisation or agency arrangement and no Party shall have the authority to bind the other without the other Party's separate prior written agreement .
14. This Agreement shall be governed by and shall be interpreted in accordance with the substantive federal laws of Switzerland excluding it's choice of law rules.

Irrespective of the foregoing each Party shall remain bound by the provisions of its own national laws and regulations with respect to the transfer or use of Classified Information or information whose export is subject to an export license.

15. All disputes among the Parties, in connection with or arising out of the existence, validity, construction, performance and termination of this Agreement (or any terms thereof), which the Parties are unable to resolve among themselves, shall be finally settled by an Arbitration. The Arbitration shall be held in Geneva (CH) in English language, in accordance with the rules of the ICC – International Chamber of Commerce by three arbitrators appointed in accordance with said rules.
16. The foregoing constitutes the entire Agreement among the Parties with respect to the subject matter hereof and supersedes and cancels all prior representations, negotiations, commitments, undertakings, communications, either oral or written, acceptances, understandings and agreements among the Parties with respect to or in connection with any of the matters to which such Agreement applies or refers.
17. Notices to _____(**Name of Vendor**) shall be made at the following address:

(Complete Address of Vendor)

Attention: Mr. _____ (**Name of the Authorized Person of Vendor**)

Notices to BHEL shall be made at the following address:

BHARAT HEAVY ELECTRICALS LIMITED,
HEAVY ELECTRICAL EQUIPMENT PLANT,
Ranipur, Haridwar-249403 (Uttarakhand), India

Attention: Mr. M.K. Sardana (**Name of the PPX Incharge**)

18. The effective date of this Agreement shall be the date of the last signature appearing herein.

IN WITNESS WHEREOF, each of the Parties has caused this Agreement, to be executed by its duly authorized officer.

Date :

Signed for and on behalf of

Signed for and on behalf of

(Name of Vendor)

BHEL

By:

By: D.K. Pandey

Title:

Title: GM (E&CC)

Signature:

Signature:

EXHIBIT 1

to the

NON-DISCLOSURE AGREEMENT

between

_____(**Name of Vendor**)

and

BHARAT HEAVY ELECTRICALS LIMITED

dated:

The Non Disclosure Agreement covers the exchange of Proprietary Information which may occur during the discussions and negotiations in view of a possible cooperation between the Parties in the following programs:

-Description of Material or Services for which the order is placed

_____(**Name of Vendor**) list of products that require an exchange of Proprietary Information which may be occur during the discussions and negotiations in view of a possible cooperation for the above programs :

EXHIBIT 2

to the

NON-DISCLOSURE AGREEMENT

between

_____ **(Name of Vendor)**

And

Bharat Heavy Electricals Ltd.

Dated:

Personnel of the Parties authorized to receive and/or transmit Proprietary Information under this Agreement:

For **(Name of Vendor)**

(Name of Person)

Tel.

Fax

Address.

For Bharat Heavy Electricals Ltd.

Mr. M. K. SARDANA

Tel. 01334-285375

Fax 01334-226084

Address. Main Administration Building

BHEL, HEEP, Haridwar

India

Tel.

Fax

Address.

Tel.

Fax

Address. Main Administration Building

BHEL, HEEP, Haridwar

India