

**BHARAT HEAVY ELECTRICALS LIMITED ,
Heavy Electrical Equipment Plant
Ranipur, Haridwar – 249 403 (UA), India**



BHEL Tender Enquiry ref . B/4011/2024/3956/V1 for the requirement of HPSU & ITS SPARES for Adani Raipur, Mirzapur, Kawai PH-II & III and Mahan Ph-III projects

LIST OF ENCLOSURES

	<u>Document</u>	<u>Number of pages</u>
1.	PRE-QUALIFICATION REQUIREMENT	02
2.	A BRIEF WRITE UP ON HPSU FOR STEAM TURBINE VALVES	03
3.	BUYER SPECIFIC TERMS & CONDITIONS OF TENDER	22
4.	MADE IN INDIA DECLARATION FORMAT	01
5.	BHEL STANDARD PBG FORMAT	03
6.	INTEGRITY PACT	05
7.	FCA	07
8.	Customer Approved QP	02
9.	Customer Approved QP for LT Motors	09
10.	Customer Approved Vendor List of C&I Items	13
	TOTAL PAGES	67

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Pre-qualification requirements for "Hydraulic Power Supply unit for main turbine valves"

Cl. No.	Pre-qualification requirements	Vendor response
1	<p>The vendor should have the experience of Design, Manufacturing, Testing & Supply of Hydraulic Power Supply Unit (HPSU) used for operation of main turbine valves of steam turbine having name plate rating 660 MW or above, with technical parameters listed below. The vendor to confirm.</p> <ul style="list-style-type: none"> i) Operating pressure of Control Fluid: ≥ 160 bar ii) Operating Control Fluid: Fire Resistant Fluid (FRF)- HFDR Type (ISO 6743/4) iii) Main Control Fluid Pump Flow: ≥ 43 LPM iv) Main Control Fluid Pump Type: 2X100% Axial Piston Pump v) Main line filter: ≤ 10 microns vi) Cooling cum Recirculation Pump Type: 2X100% vii) Return filter: ≤ 3 microns viii) Regeneration circuit: Applicable ix) Bladder Accumulator: Applicable x) Tank Capacity: ≥ 800 Liter xi) Material of Tank shall be Stainless Steel. <p>In support of experience, vendor to submit details of their past supply in the experience list format as per Annexure-1 (copy enclosed).</p>	
2	The vendor to confirm that they must have previously supplied & commissioned the required instrumentation i.e. Transmitters, switches, RTDs, DPS and gauges compatible with HPSU of main turbine valves for steam turbine applications.	
3	The vendor to confirm that they must have experience of satisfactory operation of Hydraulic Power Supply Unit for main turbine valves (referred at Cl. No.-1 above) for at least one steam turbine unit having name plate rating 660 MW or above, for minimum one year as on date of issuance of enquiry.	
4	<p>The vendor to furnish the following documents of supplied HPSU (complying Cl. No.-1 & 3 above) for our review.</p> <p>A. GA drawing, datasheet, schematic drawing & BOM of HPSU.</p> <p>B. Copy of Purchase order, Test reports of the project and Commissioning protocols at project site. The date of Purchase order (P.O.) shall not be prior to 01.01.2015.</p> <p>OR</p> <p>Certificates of satisfactory operation from their customer/End user. The date of issue of experience certificate shall not be prior to 01.01.2015.</p> <p>For vendors who have supplied HPSU (complying Cl. No.-1 & 3 above) earlier to BHEL, Haridwar may inform P.O. nos. only.</p>	

Note:

1- 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 (mentioned above from Cl. No.-1 to 4).

2- A brief write up on **Hydraulic Power Supply unit for main turbine valves** is also enclosed as **Annexure-2**.

Dy. Manager/CIE

Sr. Manager/CIE

AGM/CIE

Sr. Manager/STE-TG

AGM/STE-TG & TM

AGM (STE)

On leave
For joint no. -2 only
22/06/2022
Saxena
22/6/2022

22/06/22
22/06/2022
22/6/22


Annexure – 1 (Experience list format)

Sl. No.		Parameters	Steam Turbine unit 1
1.	Name of the station and it's Location		*
2.	Customer name and its address, Fax no. & Tel. No.		*
3.	Name, designation, e-mail ID & Mobile no. of the responsible person in customer's organization		*
4.	Purchase Order No. & Date		*
5.	Name plate rating in MW of individual Steam turbine unit	≥ 660 MW	*
6.	Date of Commissioning of HPSU		*
7.	Years of successful operation as on date of issuance of enquiry	1 years (Min.)	*
8.	Brief Scope of work		*
9.	Designed by		*
10.	Manufactured by		*
11.	Operating Pressure of Control Fluid	≥160 bar	*
12.	Operating Control Fluid	Fire Resistant Fluid (FRF)- HFDR Type (ISO 6743/4)	*
13.	Main Control Fluid Pump Flow	≥ 43 LPM	*
14.	Main Control Fluid Pump Type	2X100% Axial Piston Pump	*
15.	Main line filter	≤ 10 microns	*
16.	Cooling cum Recirculation Pump Type	2X100%	*
17.	Return filter	≤ 3 microns	*
18.	Regeneration circuit	Applicable	*
19.	Bladder Accumulator	Applicable	*
20.	Tank Capacity	≥ 800 Liter	*
21.	Material of Tank	Stainless Steel	*
22.	HPSU for turbine valves :		
a	Main Control Fluid Pump		
i	Type		
ii	make		
iii	Flow		
v	Quantity		
b	Cooling cum Recirculation pump type & make		
i	Type		
ii	Make		
iii	Flow		
v	Quantity		
c	Regeneration circuit type		
d	Main line filter type, size & flow capacity		
e	Return line filter type, size & flow capacity		
f	Regeneration circuit filter type, size & flow capacity		
g	Dehumidifier/ air ventilation filter detail		
h	Bladder Accumulator details (no., size, material & make)		
i	Cooler details (like Type, size, Material etc.)		
j	Heater details (like Type, size, Material etc.)		

Note:

(i)- Vendor to fill the applicable data in the format given above.

(ii)- Further the data against Sl. No.- 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 (marked as *) are to be **mandatorily** filled by the vendor.


 22/06/22
 (Vikas Malhotra)
 Sr. Manager (STE-T4)



WRITE UP ON HYDRAULIC POWER SUPPLY UNIT FOR 660/800 MW STEAM TURBINE SETS

HYDRAULIC POWER SUPPLY UNIT

The main function of Hydraulic power supply unit (HPSU, MAX01) is to supply Control Fluid at 160 bar pressure with a predetermined flow rate to operate respective Electro-Hydraulic Actuators (EHAs), coupled with main turbine valves (HP, IP & Overload Valve).

HPSU (MAX01) comprises of major components i.e. control fluid pumps (Axial Piston Pump, MAX01 AP001/AP002), filters (MAX01 AT011/AT012/AT013/AT014/AT016), control fluid regeneration unit (MAX01 AT015), control fluid cooler (MAX01 AC010/AC020), control fluid heater (MAX01 AH001), Hydraulic pressure Accumulators (MAX01 BB011/BB012/BB013/BB014), Temperature regulator (MAX01 AA151 AA152) etc. These components are mounted on the control fluid tank of HPSU. All the piping/component coming in contact with FRF are made of stainless steel.

For the redundancy and to prolong the service life of the unit, 2X100% control fluid pumps (MAX01 AP001/AP002) are provided for control fluid supply. In case of an on-line pump failure, operation is automatically switched over to the stand by pump. The pump function in pressure controlled mode i.e. they charge the accumulator system to 160 bar and then limit the displacement volume so that the system pressure of 160 bar is maintained constant. The electric motors and pressure relief valves (MAX01 AA061/AA062) for system pressure adjustment are mounted on the control fluid tank cover. Simplex filter (MAX01 AT011/AT012) at downstream of each control fluid pump (MAX01 AP001/AP002) have been provided having mesh size 10 μ . The filters (MAX01 AT011/AT012) are equipped with clogging indicator (MAX01 CP011/CP012) for alarm, in case of choke.

The accumulators system (MAX01 BB011/BB012/BB013/BB014), which is to supply the fluid quantity required for control movements of power piston, comprises a group of bladder-type accumulators with isolating valves and safety valves. The bladder accumulators (40 MAX01 BBO11/BB012/BB013/BB014) are fixed at the rear side.

The supply unit is of compact design. It comprises a tank made of stainless steel with fluid level monitoring devices (MAX01 CL501) as well as breather filter (MAX01 AT001). Moreover, a drip tray is provided at the bottom, which is at the lowest point. All electric devices are wired to a terminal strip in the terminal box (MAX01 GF001). There are total 5 nos. pressure connections (X1, X2, X3, X4 & X5) and 5 nos. return connections (T1, T2, T3, T4 & T5) have been provided in the HPSU for further connecting the control fluid pipe to various actuators.

Separate cooling-cum-filtration circuit is provided in order to maintain the cleanliness of the system and to ensure proper cooling. Separate 2X100% capacity AC driven circulation pumps (MAX01 AP011/AP012) supply fluid to this circuit. On the tank cover a console is mounted which contains the local pressure gauges, pressure switches and



WRITE UP ON HYDRAULIC POWER SUPPLY UNIT FOR 660/800 MW STEAM TURBINE SETS

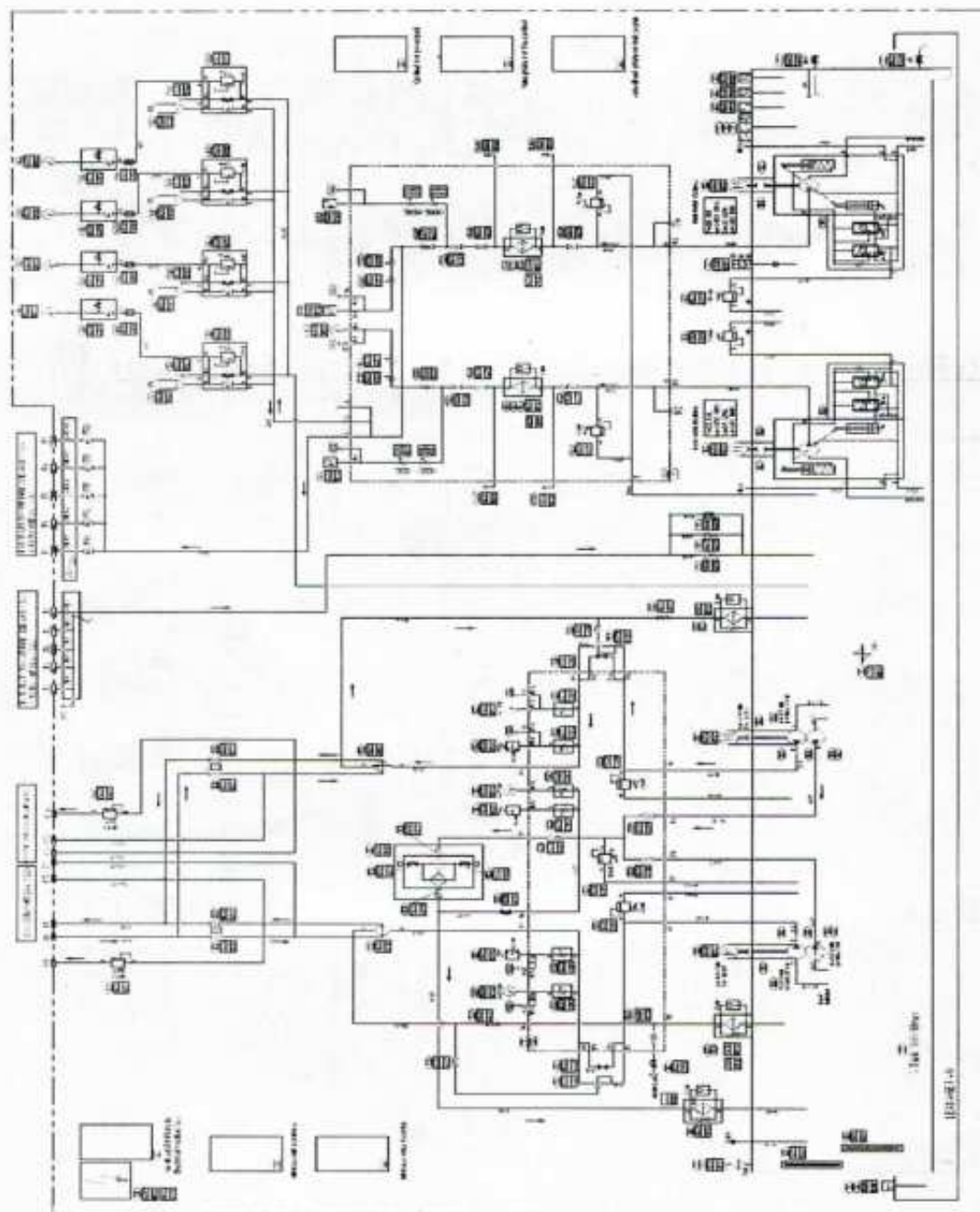
nipples for commissioning measurements. The recirculation pumps (MAX01 AP011/AP012) supply the control fluid to the cooler (MAX01 AC010/AC020) through temperature regulator (MAX01 AA151/AA152). The temperature regulator (MAX01 AA151/ AA152) is set on 45 deg C. Only in case the control fluid temperature is greater than 45 deg C, the temperature regulator allows the control fluid to be passed through the cooler (MAX01 AC010/AC020), else it supplies the control fluid directly to the tank via fine filter (MAX01 AT013/AT014).

A separate regeneration circuit is provided in the HPSU with 2X100% capacity AC driven regeneration pump (MAX01 AP011/AP012). The regeneration unit pumps (MAX01 AP011/AP012) supply the control fluid from tank to control fluid regeneration unit (MAX01 AT015). In control fluid regeneration unit (MAX01 AT015), control fluid gets reconditioned and return back to tank via a filter (MAX01 AT016). The regeneration circuit is designed to purify at least 2% of the total fluid charge in the system per hour on continuous basis.



WRITE UP ON HYDRAULIC POWER SUPPLY UNIT FOR 660/800 MW STEAM TURBINE SETS

The typical schematic diagram of Hydraulic Power Supply Unit is shown below:



BHEL HARIDWAR

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BUYERS SPECIFIC ADDITIONAL TERMS & CONDITIONS**ITEM NAME: Hydraulic Power Supply Unit of Turbine Valves with its spares****PROJECT: ADANI RAIPUR, MIRZAPUR, KAWAI PH-II & KAWAI PH-III AND MAHAN PH-III****1. SCOPE OF ENQUIRY:**

E-bids on GeM portal are invited from bidders for the supply of **Hydraulic Power Supply Unit of Turbine Valves with its spares_for** ADANI RAIPUR, MIRZAPUR, KAWAI PH-II & KAWAI PH-III AND MAHAN PH-III as per requirement mentioned below:

ITEM-NO	MATERIAL CODE & ITEM DESCRIPTION	QTY.	UNIT	PROJECT	DATE FOR SUPPLY COMPLETION
1	W90311400299 DRG: 11140030500 REV: 00 HPSU WITH FLUSHING DEVICE, COMMISSIONING SPARES AND ACCESSORIES-MAIN TURBINE VALVES	1	SET	RAIPUR U-1	30-11-26
		1	SET	RAIPUR U-2	30-05-27
		1	SET	MIRZAPUR U-1	30-05-27
		1	SET	MIRZAPUR U-2	30-11-27
		1	SET	KAWAI PH-II, U-1	30-11-27
		1	SET	KAWAI PH-II, U-2	30-05-28
		1	SET	KAWAI PH-III, U-1	29-02-28
		1	SET	KAWAI PH-III, U-2	30-08-28
		1	SET	MAHAN PH-III, U-1	30-12-27
		1	SET	MAHAN PH-III, U-2	30-06-28
	Total qty	10	SET		
2	W99311400483 DRG: 21140056020 VAR.01 REV: 01 MAIN CONTROL FLUID PUMP ALONG WITH MOTOR & COUPLING COMPLETE ASSEMBLY)	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
	Total qty	5	NO		
3	W99318146434 DRG: 418000E7053 REV:00 BEARINGS OF MAIN CFP MOTOR IE3 N.STD:418000E7053	1	SET	RAIPUR Mand. Spares	30-07-27
		1	SET	Mirzapur Mand. Spares	31-01-28
		1	SET	Kawai Ph-II Mand. Spares	30-07-28
		1	SET	Kawai Ph-III Mand. Spares	30-10-28
	Total qty	4	SET		
4	W99318146418 DRG: 418000E7053 REV:00 CFP MOTOR FOR MAIN HPSU IE3	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
	Total qty	4	NO		
5	W99318146426 DRG: 418000E7053 REV:00	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28

	MOTOR FOR CIRCULATION PUMP FOR MAIN HPSU IE3	1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		4	NO		
6	W99318146205 DRG: 418000C8052 REV:00 PRESSURE TRANSMITTER FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
7	W99318146191 DRG: 418000C8052 REV:00 LEVEL TRANSMITTER FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
8	W99318146140 DRG: 418000C8052 REV:00 PRESSURE SWITCH FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
9	W99318146159 DRG: 418000C8052 REV:00 DIFFERENTIAL PRESSURE SWITCH TYPE-1 FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
10	W99318146167 DRG: 418000C8052 REV:00 DIFFERENTIAL PRESSURE SWITCH TYPE-2 FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
11	W99318146175 DRG: 418000C8052 REV:00 DIFFERENTIAL PRESSURE SWITCH	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28

	TYPE-3 FOR MAIN HPSU	1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
12	W99318146230 DRG: 418000C8052 REV:00 PROXIMITY SWITCH FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
13	W99318146213 DRG: 418000C8052 REV:00 RTD FOR MAIN HPSU	2	NO	RAIPUR Mand. Spares	30-07-27
		2	NO	Mirzapur Mand. Spares	31-01-28
		2	NO	Kawai Ph-II Mand. Spares	30-07-28
		2	NO	Kawai Ph-III Mand. Spares	30-10-28
		2	NO	MAHAN PH-III, Mand.spares	30-08-28
		10	NO		
14	W99318146094 DRG: 418000C8052 REV:00 PRESSURE GAUGE TYPE-1 FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
15	W99318146108 DRG: 418000C8052 REV:00 PRESSURE GAUGE TYPE-2 FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
16	W99318146116 DRG: 418000C8052 REV:00 PRESSURE GAUGE TYPE-3 FOR MAIN HPSU	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28
		1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		
17	W99318146124 DRG: 418000C8052 REV:00 PRESSURE GAUGE TYPE-4 FOR MAIN	1	NO	RAIPUR Mand. Spares	30-07-27
		1	NO	Mirzapur Mand. Spares	31-01-28
		1	NO	Kawai Ph-II Mand. Spares	30-07-28

	HPSU	1	NO	Kawai Ph-III Mand. Spares	30-10-28
		1	NO	MAHAN PH-III, Mand.spares	30-08-28
		5	NO		

2. Project Detail:

1.Project Name	ITEMS TO BE DISPATCHED DIRECTLY TO 2X800 MW RAIPUR PROJECT
Consignee Address	Adani Power Limited Village: Raikheda Block: Tilda, Raipur 493225 Chhattisgarh
2. Project Name	ITEMS TO BE DISPATCHED DIRECTLY TO 2X800 MW MIRZAPUR PROJECT
Consignee Address	Mirzapur Thermal Energy (UP) Private Limited Village: Dadri Khurd; PO: Darhi Ram Tehsil: Sadar, District: Mirzapur 231 304 Uttar Pradesh
3. Project Name	ITEMS TO BE DISPATCHED DIRECTLY TO 2X800 MW KAWAI PH-II PROJECT
Consignee Address	Adani Power limited, Kawai, 2 x 800 MW(Phase-II) Thermal Power project, Village - Kawai, Tehsil - Atru, Baran -District, Rajasthan Pin-325219
4. Project Name	ITEMS TO BE DISPATCHED DIRECTLY TO 2X800 MW KAWAI PH-III PROJECT
Consignee Address	Adani Power limited, Kawai, 2 x 800 MW(Phase-II) Thermal Power project, Village - Kawai, Tehsil - Atru, Baran -District, Rajasthan Pin-325219
5. Project Name	ITEMS TO BESPACHED DIRECTLY TO 2X800 MW MAHAN PH-III PROJECT
Consignee Address	Mahan Energen Limited. 2x800 MW (Phase-III) Thermal Power Project Village: Bandhaura, Karsulal Tehsil: Waidhan, District. Singrauli-486886 (Madhya Pradesh)

3. EARNEST MONEY DEPOSIT (EMD):

All interested vendors must submit their e-bid along with the proof of submission of following Earnest Money Deposit (EMD) details in GeM portal along with offer EMD is applicable to all the bidders irrespective of PMD bidders/GeM provisions.

Details	Amount In INR	Type
EMD	INR 6,00,000/- (Six lakhs only)	Refundable

3.1: Modes of deposit: The EMD may be accepted only in the following forms:

- (i) Electronic Fund Transfer credited in BHEL account (before tender opening).
- (ii) Banker's cheque/ Pay order/ Demand draft, in favour of BHEL (along with offer).
- (iii) Fixed Deposit Receipt (FDR).
- (iv) Bank Guarantee from any of the Scheduled Banks.
- (v) Insurance Surety Bonds.
- (vi) The EMD shall remain valid for a period of 45 (forty-five) days beyond the final bid validity period as asked in NIT.

For E-Payment, the RTGS details are as mentioned below:

Bank Details	SWIFT Details of bank	Contact Details of Banker
STATE BANK OF INDIA RANIPUR BRANCH, OPP: BHEL MAIN GATE, SECTOR-5, RANIPUR, HARIDWAR, UTTRAKHAND, INDIA PIN CODE: 249403	SWIFT NO : SBININBB225 CC ACCOUNT NO : 10667995458 IFSC CODE : SBIN0000586	Contact No. +91 1334 224201 +91 1334 226125 Fax: +91 1334 226512

3.2: Exemption of EMD

As per GeM GTC following are the exempted category of EMD/Bid Security.

- a. Micro and Small Enterprises (MSEs) who are holding valid Udyam Registration and are manufacturer of the offered Productor Service (Primary Product / Service - in case of bunch bid with total value wise evaluation) and give specific confirmation to this effect at the time of bid submission and claim EMD exemption and whose credentials are validated online through Udyam Registration website of Ministry of MSME and also through supporting document uploaded during bidding process and validated by the Buyer. State Government Buyers may, however, choose to exempt only MSEs from the State of Bid Inviting Authority by specifying the same in ATC of the Bid. In case no such ATC is included, eligible MSEs of all states are exempted.
- b. Start-ups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT), holding valid Start-up Recognition Certificate which is to be uploaded while bidding and claiming EMD exemption and to be validated by the Buyer. Bidder to ensure that turnover for any of the financial years has not exceeded beyond limits prescribed in the certificate / Start Up scheme of DPIIT.
- c. KVIC, ACASH, WDO, Coir Board, TRIFED and Kendriya Bhandar.
- d. Sellers who have got their credentials verified through the process of Vendor Assessment by Vendor Assessment Agencies for the Primary Product / Primary Service for which Bid / RA has been invited and holding valid Vendor Assessment or Vendor Assessment Exemption Report / confirmation (Seller to upload VA report / VAE confirmation to be validated by the Buyer).
- e. Sellers / Service Provider having annual turnover of INR 500 Crore or more, at least in one of the past three completed financial year(s)
- f. Sellers / Service Providers holding valid BIS License for the Primary Product Category whose credentials are validated through BIS database and through uploaded supporting documents to be validated by the buyer.
- g. Central / State PSUs.
- h. In addition to above GeM conditions, offers directly from the manufacturer or their authorized agents are also exempted from submission of EMD.

3.3: Forfeiture of EMD:

- a. A bidder's EMD will be forfeited if the bidder withdraws or amends its/his tender or impairs or derogates from the tender in any respect within the period of validity of the tender or if the successful bidder fails to furnish the required performance security within the specified period mentioned in the Tender.
- b. EMD by the tenderer to be withheld in case any action on the bidder is envisaged under the provisions of extant "Guidelines on Suspension of business dealings with suppliers/ contractors" and forfeited/ released based on the action as determined under these guidelines.
- c. Bid securities of the unsuccessful bidders shall be returned to them after expiry of the final bid validity period / latest by the 30th day after the award of the contract. Since it is a two-part bidding, bid securities of unsuccessful bidders during first stage i.e. technical evaluation shall be returned within 30 days of declaration of result of first stage i.e. technical evaluation.
- d. Bid security/EMD of the successful bidder shall be returned only on conclusion of the order and receipt of a Performance Security/Performance Bank Guarantee of 10% of contract value (excluding taxes) from contractor / Supplier.
- e. EMD/PBG/PS shall not carry any interest.

4. PERFORMANCE SECURITY/PERFORMANCE BANK GUARANTEE:

Successful bidder to submit Performance Security/Performance Bank Guarantee of 5% of the contract Value (Excluding Taxes). The Performance Security/PBG shall be submitted within 30 days of notification of the award of Contract and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations.

PS/PBG shall be returned to the contractor without interest, after the contractor duly performs and completes the contract in all respects but not later than 60 (sixty) days of completion of all such obligations including the warranty under the contract. The Performance Security/PBG shall not carry any interest.

4.1 Modes of deposit of PS/ PBG: Performance Security/Performance Bank Guarantee shall be furnished in the following forms:

- I. Local cheques of Scheduled Banks (subject to realization)/ Pay Order/Demand Draft/ Electronic Fund Transfer in favour of BHEL.
- II. Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.
- III. Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL).
- IV. Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL).
- V. Insurance Surety Bond.

(Note: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith)

4.2: Forfeiture of Performance Security/Performance Bank Guarantee:

The Performance Security/ Performance Bank Guarantee will be forfeited and credited to BHEL's account in the event of a breach of contract by the supplier.

5.BUYERS SPECIFIC ADDITIONAL TERMS & CONDITIONS IN ADDITION TO GTC

1. Sl. No.	Terms	Description	Supplier confirmation
2.	Make in India Clause	<p>“For this procurement, the local content to categorize a supplier as a Class-I Local Supplier / Class-II Local Supplier/ Non-Local Supplier and purchase preference to Class-I Local Supplier, is as defined in Public Procurement (Preference to Make in India), Order-2017 Ref. No. P-45021/2/2017-PP (BE-II) dtd. 04/06/2020 issued by DPIIT. In case of subsequent orders issued, by the nodal ministry, changing the definition of local content for the items of this NIT, but before opening of Part-II bids against this NIT</p> <p>As per Make in India Order, only Class-I and Class-II local supplies are eligible to bid in this tender enquiry.</p> <p>For this eligibility criteria, bidders are required to submit certificate of Minimum local content as specified in the Make In India Declaration Certificate of the tender.</p>	
3.	Documents Checklist:	<p>Please submit signed and stamped copy of your offer on each page along with following documents;</p> <ul style="list-style-type: none"> • Buyer Specific T&C. • Technical PQR & its supportive document. • Technical drawing & purchase specification. • Quality plan. • Certificate/self-certification for minimum local content as per PPP-MII order. • Replica of price bid schedule without prices with part-I offer. <p>Please note that technical documents shall be shared against submission of FCA (FCA copy enclosed) .</p>	
4.	Compliance of GTC on GeM	General Terms and Conditions on GeM 4.0 (Version 1.21) Dtd 18.01.2025 or it's latest revision of GeM portal shall be applicable against this enquiry. Kindly confirm to compliance the same for this tender.	
5.	Pre-Qualification Requirements	The Pre-Qualification Requirements have been compiled. All the bidders should ensure submission of complete details and documents as called for in these requirements. The Offers submitted by the bidders would be scrutinized with respect to Pre-Qualification Requirements first. Techno-Commercial offer of only those bidders shall be evaluated who meet the Pre-Qualification Requirements.	
6.	Procurement from Customer Approved / Accepted Vendors only	<p>Bidders are requested to submit their credentials along with offer (Credentials should include BHEL P.O.s on vendor for the same rating or higher rating turbines, Experience of vendor with state utilities and major PSU like NTPC, End User Certificate wherever available), in order to take up with end customer for approval</p> <p>Supplier to submit following credentials for arranging Customer approval:-</p> <ul style="list-style-type: none"> • Company Profile • List of Order Executed/ on hand for Power Sector/Gov. organization of same /similar items • Copy of Major Supply Orders • Performance Certificates for Satisfactory working of System/ Equipment from end users Item. <p>The offer of only those bidders, who meet Pre-qualification requirement (PQR), Technical requirement and approved by the End Customer, will be considered for price-bid opening & RA for the requirement against</p>	

		this enquiry.									
7.	Compliance of Rule 144 (xi) of GFR 2017	Compliance of Restrictions under Rule 144 (xi) of GFR 2017 shall be as per GeM.									
8.	Bid validity/ Validity of offer	Please note that validity of the offer shall be 180 days from the date opening of Techno-Commercial bid (Part-I bid) on GeM portal. Offer of bidder’s having validity less than 180 days shall liable to reject. Please confirm.									
		The required validity is considering that offer is complete & clear w.r.t. PQR and all techno-commercial conditions. Vendors need to extend their offer validity for the time taken by them in responding BHEL’s comments/clarification sought during techno-commercial scrutiny of the offer. In case regret by any bidder for such validity extension, their offer shall liable to be reject. Please confirm.									
9.	Firm & Fixed Prices	Kindly confirm that prices will remain firm and fixed during the entire validity and execution of the project.									
10.	Prices/Basis of Quotation	Kindly confirm to quote your price inclusive of Packing, forwarding, Freight & GST for Total quantity on GeM portal.									
		Transit Insurance would be arranged by BHEL. Please quote your prices accordingly.									
		The prices are to be quoted on Ex-Works with freight Pre-paid up to project destination basis. The goods must be dispatched through any Bank approved transporters having their branch at Haridwar. The names and addresses of transporters approved by IBA as well as BHEL are posted at our website www.bhelhwr.co.in. Please note that, if you dispatch the material by any BHEL un-approved transporter then you will necessarily be required to furnish the MRC (Material Receipt Certificate) from respective Project Site for processing of your invoice. No demurrage charges would be borne by BHEL.									
11.	Loading and unloading	Vendor’s scope will not cover Loading & Unloading at Final destination of delivery. Unloading at final destination (i.e. BHEL site) is in BHEL ‘scope’. Loading and unloading at other intermediate places due to any permitted transshipment will be the responsibility of the vendor. Kindly note									
12.	Evaluation criteria	Evaluation will be done on the basis of total landed cost to BHEL, taking all material codes and service together with total cost involved for delivery up to BHEL project sites (considering material cost, taxes & duties and Freight charges up to Project site).									
13.	Evaluation Currency	The evaluation currency for this tender shall be INR.									
14.	Payment terms:	For Material Portion; The payment shall be done after receipt of Material at BHEL respective project site, within no. of days as defined in the below table from the date of receipt of Material at site (i.e. MRC date). <table><tr><th>Type of Bidder</th><th>Payment Terms (Number of Days)</th></tr><tr><td>Micro & Small Enterprises (MSEs)</td><td>45 days</td></tr><tr><td>Medium Enterprises</td><td>60 days</td></tr><tr><td>Non MSME</td><td>90 days</td></tr></table>	Type of Bidder	Payment Terms (Number of Days)	Micro & Small Enterprises (MSEs)	45 days	Medium Enterprises	60 days	Non MSME	90 days	
Type of Bidder	Payment Terms (Number of Days)										
Micro & Small Enterprises (MSEs)	45 days										
Medium Enterprises	60 days										
Non MSME	90 days										

		<p>The Payment terms are subject to receipt of non-discrepant document from supplier.</p> <p><u>For Supervision during E&C of equipment at project site :</u> 100% payment against submission of Successful Commissioning or installation Certificate/Time Sheet/MOM signed by Project authorities along with Invoice direct to BHEL.</p>	
15.	GeM charges	GeM charges if any shall be either side only i.e. buyer's GeM charges shall be in buyer's account and seller's GeM charges shall be on seller's account. Please confirm.	
16.	Reverse Auction	RA shall be done on GeM portal as per the guidelines & logics enabled on GeM portal.	
17.	Contract execution	Bidder's are advised to read GeM related query & clarification carefully on GeM portal. Order shall be executed through GeM.	
18.	Delivery Period	<p>Please note that BHEL's Delivery requirements are mentioned in point no 1 of above.</p> <p>Early delivery w.r.t. above lot delivery will be accepted only after written confirmation from BHEL. BHEL reserve right to reject early delivery request of bidders / suppliers.</p> <p>Delivery period indicated in GeM bid is only indicative and final delivery of tender shall be taken as mentioned above.</p> <p>Accordingly bidders to confirm the above deliveries or quote their best possible delivery in no of months / weeks from the date of placement of Purchase order, including all activities like document approval, inspection by TPI time etc.</p>	
19.	Liquidated Damages (LD) for late delivery	<p>Liquidated Damages shall be lot wise as per clause no. 15 (iii) of General terms and conditions on GeM 4.0 (Version 1.21) as under: kindly confirm.</p> <p>"If the Seller/Service Provider fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% of the contract value of delayed quantity per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever".</p> <p>The date of LR would be treated as the date of delivery for penalty purposes.</p>	
20.	Sharing of technical documents	Kindly submit signed & stamped copy of FCA for getting technical documents of the tender from BHEL.	
21.	Technical Requirement :	<p>Kindly ensure completeness of your offer as per clause-6 OF BHEL SPECIFICATION drawing 11140030500, prior to submission of their offer.</p> <p>Kindly ensure to submit duly filled checklist as per Annexure -C & Annexure-D along with your offer.</p> <p>Kindly confirm to provide 3D MODELS for supplied equipment assemblies (having all the components included) complete with all connection points/interfaces for the purpose of 3d power plant layout to be done by BHEL as per customer specification requirements. the file format of 3D model shall be STP.</p> <p>Pl note that training program at site for 2 days shall be provided by the vendor regarding design/construction features, operation & maintenance of the supplied equipment (including C&I) to customer / BHEL Engineers.</p> <p>The document no. " CIE-HPSU-H3 REV00" is part of BHEL purchase</p>	

		specification and shall be complied by the vendor., kindly confirm.	
		HPSU documents submitted by vendor for BHEL'S approval shall also be subject to customer's approval. therefore, timely submission of the complete set of HPSU documents must be ensured by the vendor.	
		The supplier to make a visit to project sites at a suitable point of time to carry out material verification in presence of bhel site representative, in order to check completeness of supplied equipment. any short coming found during the visit to be addressed by the vendor well in advance to avoid last minute held up at site.	
		Documents required after order placement: Kindly confirm that in the event of ordering, you will furnish all the documents as per BHEL DRG. NO. 41140056014 (MDL) complying time schedule mentioned therein. for BHEL review and approval	
22.	Technical Document/ Drawing approval conditions	<p>Drawings/Data sheets/documents/QAP etc. as called for in the specifications shall be submitted by Vendor for BHEL/ Customer approval within 30 days of purchase order. BHEL shall approve these drawings/data sheets/ documents / QAP etc. within 30 days of receipt.</p> <p>Any comments on the documents shall be given by BHEL within 7 days of submission and vendor shall submit revised document / reply to comments, within 7 days of BHEL comments. However, total time for Document submission and approval shall not exceed 30 days for respective party.</p> <p>Delivery is from the date of PO, accordingly, delay in submission / revision of the documents by the vendor will automatically account for to vendor. In case of delay on account of BHEL in comments / approval of the documents, the delivery shall be re-scheduled by the no of days taken by BHEL in excess to 30 days. For delay analysis cumulative no of days (including time taken in comments), shall be considered for delivery extension.</p>	
23.	Recommended Spares	Please submit item wise price list of each item referred in BHEL Drawing no 2-11400-56015 rev.01 (Recommended Spare Parts).These prices shall be used for our reference and future ordering (if required) and not to be considered for Evaluation.	
24.	Supervision during Erection & Commissioning and Training	<ul style="list-style-type: none"> Kindly note that supplier to carry out the supervision work during E&C of the equipment. Since there are substantial interfaces of HPSU with EHA's, so bidder to carry out their supervision work at site to ensure satisfactory commissioning of HPSU along with all associated EHA's. for that, kindly Confirm that following charges have been quoted separately in your offer. Kindly note that training program at site for 2 (Two) days (Once for each project) shall be provided by the vendor regarding design/ construction features, operation & maintenance of the supplied equipment's (Including C&I) to customer/ BHEL Engineers. <p>Please ensure that "Per Man Day" & "Per Visit" charges for Supervision during Erection & Commissioning and Training including every expense are quoted. For evaluation purpose, total 70 Mondays and 15 visits (i.e. 14 man days & 03 visit for each project) charges shall be considered for commissioning and training.</p> <p>Payment will be made on actual number of days and visits involved in supervision of erection/ commissioning and training as verified by respective project site through MOM/time site.</p>	

		<p>Please note that the vendor should send a checklist to BHEL prior to deputation of competent representative for Commissioning. BHEL will confirm the checklist prior to issuing Commissioning Call to the vendor. After receipt of checklist from BHEL, the vendor would send the competent representative within 15 days of confirmation of site readiness. <u>In case, any additional work is required which is beyond the scope/warranty/guarantee of the vendor, the work would be commenced only after signed agreements with site representative & the vendor.</u></p> <p>Please confirm that the charges quoted for Supervision during Erection & Commissioning and Training shall be inclusive of applicable GST .</p>	
25.	Packing and Storage	<p>A -Kindly confirm the following packing requirements;</p> <ul style="list-style-type: none"> • All the equipment's/items shall be supplied in closed steel boxes/closed wooden boxes with steel cover sheet. packing boxes should be rain proof. Kindly confirm. • Packaging of item should be done in such a way that it should not require any internal package inspection for at least one year. • STORAGE & HANDLING INSTRUCTIONS of the equipment shall be furnished by the vendor separately and 2 copies of the same shall be supplied to site along with main equipment. • Packing box of mandatory spares shall be painted with green color for easy identification at project sites 	
26.	Painting requirement	<p>Kindly confirm the following painting requirement of the item;</p> <p>i- ALL THE EQUIPMENT & ITEMS SHALL BE PAINTED WITH COATING SYSTEM C-4 ENVIRONMENT CLASSIFICATION AS PER PAINTING SPECIFICATION AS INDICATED IN ANNEXURE-1 (TECHNICAL SPECIFICATION FOR PAINTING & COATING OF EQUIPMENT & STRUCTURE). TOTAL PAINT DFT 225 MICRON MINIMUM.</p> <p>ii- TOUCH-UP PAINT (5% OF TOTAL FINISH COAT QUANTITY) TO BE SUPPLIED BY THE VENDOR.</p>	
27.	Action against Bidders / vendor / supplier / contractor in case of default:	<p>In order to protect the commercial interests of BHEL, BHEL shall take action against supplies / contractors by way of suspension of business dealings, who either fail to perform or are in default without any reasonable cause, cause loss of business/ money/ reputation, indulge in malpractices, cheating, bribery, fraud or any other misconduct or formation of cartels so as to influence the bidding process or influence the price etc.</p> <p>Suspension of Business Dealings could be in the form of "Hold" or "Banning" a supplier/ contractor or a bidder and shall be as per "Guidelines for Suspension of Business Dealings with Suppliers/ Contractors" available at BHEL's website "https://www.bhel.com/guidelines-suspension-business-dealings-supplierscontractors"</p>	
28.	MDCC clause	<p>Please note that, material shall be dispatched only after issue of Material dispatch clearance certificate (MDCC) from end customer. For issue of MDCC, vendors are required to submit all test certificates (TC) and inspection report of third party (IR) to BHEL. After review & acceptance of the quality document, BHEL will forward the same to end customer for issuance of MDCC.</p> <p>MDCC shall be issued within 7 days of receipt of complete quality documents / TCs,. In case of delay in issuance of MDCC, only delivery shall be extended by no of days taken by BHEL in excess to 7 days and all other terms and</p>	

		<p>conditions of PO shall remains same & binding.</p> <p>In case any material is dispatched without MDCC and any loss is incurred by Supplier/Vendor for any reason whatsoever, BHEL shall not be responsible in any manner to compensate the supplier in this regard.</p> <p>Kindly confirm.</p>															
29.	Integrity Pact	<p>(a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.</p> <table><tr><th>SI</th><th>IEM</th><th>Email</th></tr><tr><td>1.</td><td>Shri Otem Dai, IAS (Retd.)</td><td>iem1@bhel.in</td></tr><tr><td>2.</td><td>Shri Bishwamitra Pandey, IRAS (Retd.)</td><td>iem2@bhel.in</td></tr><tr><td>3.</td><td>Shri Mukesh Mittal, IRS (Retd.)</td><td>iem3@bhel.in</td></tr></table> <p>(b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/ three-part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.</p> <p>(c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only.</p> <p>Note: <i>No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:</i></p> <table><tr><td>Mr. Sachin Gupta Designation: Engineer (PPX-BOI) 4th Floor, Main Administrative Building, HEEP, BHEL, Hardwar- 249403 Uttarakhand, India Tel: +91 1334 28 1690</td><td>Mr. Pankaj Kumar Designation: Manager (PPX-BOI) 4th Floor, Main Administrative Building, HEEP, BHEL Hardwar- 249403 Uttarakhand, India Tel: +91 1334 28 1690</td></tr></table>	SI	IEM	Email	1.	Shri Otem Dai, IAS (Retd.)	iem1@bhel.in	2.	Shri Bishwamitra Pandey, IRAS (Retd.)	iem2@bhel.in	3.	Shri Mukesh Mittal, IRS (Retd.)	iem3@bhel.in	Mr. Sachin Gupta Designation: Engineer (PPX-BOI) 4 th Floor, Main Administrative Building, HEEP, BHEL, Hardwar- 249403 Uttarakhand, India Tel: +91 1334 28 1690	Mr. Pankaj Kumar Designation: Manager (PPX-BOI) 4 th Floor, Main Administrative Building, HEEP, BHEL Hardwar- 249403 Uttarakhand, India Tel: +91 1334 28 1690	
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1.	Shri Otem Dai, IAS (Retd.)	iem1@bhel.in															
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Mr. Sachin Gupta Designation: Engineer (PPX-BOI) 4 th Floor, Main Administrative Building, HEEP, BHEL, Hardwar- 249403 Uttarakhand, India Tel: +91 1334 28 1690	Mr. Pankaj Kumar Designation: Manager (PPX-BOI) 4 th Floor, Main Administrative Building, HEEP, BHEL Hardwar- 249403 Uttarakhand, India Tel: +91 1334 28 1690																
30.	Performance Security/ Performance Bank Guarantee:	<p>Successful bidder to submit Performance Security/Performance Bank Guarantee of 5% of the contract Value (Excluding Taxes). The Performance Security/PBG shall be submitted within 30 days of notification of the award of Contract and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier, including Guarantee/warranty obligations.</p> <p>PS/PBG shall be returned to the contractor without interest, after the contractor duly performs and completes the contract in all respects but not later than 60 (sixty) days of completion of all such obligations including the Guarantee/ Warranty under the contract. The Performance Security/PBG shall not carry any interest. Please confirm.</p>															
31.	Guarantee/Warranty clause	<p>Kindly confirm the following Guarantee/Warranty clause;</p> <ul style="list-style-type: none">Guarantee/Warranty period shall be provided for a period of 36 months from the date of supply or 18 months from commissioning, whichever is earlier. In case of any failure or trouble reported from site, the supplier should depute their representative immediately to attend the problem and replace the defective component/part if required, without any additional cost to BHEL.															

		<ul style="list-style-type: none"> The supplier to provide technical support/services or alternative solutions against any issues; reported in the equipment supplied by the vendor for up to at least 10 years from the supply date. <p>BHEL reserve the rights to reject the offers having lesser guarantee period as mentioned above.</p>	
32.	Order Acceptance :	Ink signed order acceptance shall be furnished within 15 days of order placement. In case, order acceptance is not received within 15 days of order placement, PO deemed to be accepted by you.	
33.	Beneficiary of PO	Kindly confirm on whom the PO will be placed in the event of ordering.	
34.	Material Verification	The supplier shall depute their representative to site after receipt of material at a suitable point of time to carrying out material verification in presence of BHEL site re-presentative , in order to check completeness of supplied equipment. The boxes/ consignment received from supplier will be opened in front of supplier's representative and the content of the packages would be inspected jointly w.r.t. detailed packing list. Any shortage or physical damage shall be identified and recorded in the minutes to be signed with Site/ BHEL Hardwar's representative. Supplier shall depute their representative for this activity within 10 days of receipt of intimation from BHEL without any additional cost, kindly confirm.	
35.	Additional Conditions for Assessment	BHEL reserves the right to consider / Not-consider the offers based on the evaluation of documents submitted for the Pre-Qualification Criteria (PQR).	
		BHEL also reserves the right to have on-site assessment of the facilities at supplier's works during the bid evaluation.	
36.	O&M Manuals	Kindly confirm that in the event of ordering O&M manuals will be provided in 10 nos. of Hard Copies and 05 nos portable hard disks for soft copies of O&M manual as per clause 2.4.1 of BHEL drawing no. 1-11400-56012 . 03 Nos. Hard Copies & 01 no portable hard disks of O&M Manuals shall be supplied along with the equipment at site and description of the same should be mentioned in packing list & balance 07 nos of Hard Copies and 04 nos portable hard disks for soft copies of O&M manual to be dispatched to BHEL HWR.	
		Kindly note that your documents including O&M Manual shall bear the details as per cover page (Annexure-IV). Further the cover page of the O&M Manual shall be bilingual in Hindi & English Language.	
37.	Quality Requirement	<p>Kindly confirm the follow quality requirement of the tender;</p> <ol style="list-style-type: none"> Kindly submit endorsed copy of customer approved quality plan (copy attached). Kindly specifically confirm to follow Customer approved QP. Inspection by BHEL nominated inspection agency QUEST and Customer as per Customer approved quality plan . For spare items, Inspection shall be done as per main customer approved QP. For the item not appearing in customer approved QP, TC/COC to be submitted. Kindly confirm to attached customer approved C&I list for applicable for C&I items. Customer approved SQP of LT motor is applicable for 45 kw & above rating motors. Below 45kw motors, manufacturer to carryout internal routine test and test report of the same to be submitted to customer for review. Kindly note that the following are the Adani customer approved vendors for LT motors& procurement are to be made from any Adani approved vendors only; 	

		<p>A) CGL AHMEDNAGAR B) MARATHON ELECTRIC KOLKATA C) Marathon Regal Beloit Wuxi Co. Ltd. China D) Siemens China E) ABB FARIDABAD, CHINA F) BHARAT BIJALI MUMBAI G) KEC BANGALORE/HUBLI H) BHEL BHOPAL I) SHANGHAI ELECTRIC COMPANY CHINA J) XIANGTAN ELECTRIC MANUFACTURING CO LTD CHINA K) SIEMENS LTD MUMBAI, CHINA L) JYOTI LTD. BARODA M) NGEF HUBLI N) SHANGHAI SHANGDIAN ELECTRIC MACHINERY CHINA O)JIANGSU DAZHONG ELECTRIC MOTORS CO. LTD CHINA</p> <p>h) Kindly confirm that paint material shall be procured from following manufacturer: -</p> <ol style="list-style-type: none"> 1. Asian Paints India Ltd. 2. Shalimar Paints 3. Jotun 4. Akzonobel 5. Berger Paints 6. Good Lass Nerolac Paints 7. Bombay Paints 8. Jenson & Nicholson <p>f. C&I item area to procured from customer approved vendors only (Adani C&I customer approved vendor list is attached).</p>	
		<p>Inspection charges will be borne by BHEL. All coordination with third party inspection agency shall be done by the supplier only. Inspection call to third party inspection agency may be raised directly by the supplier; however 15 days are to be provided for deputation of representative of third party inspection agency for inspection.</p>	
38.	Dispatch documents	<p>Following dispatch documents to be provided immediately after directly dispatch to BHEL Project site for billing purpose:</p> <ul style="list-style-type: none"> • Guarantee/Warrantee Certificates • E- Invoice and commercial inv • GeM invoice • Original consignee copies of GR/LR/RR (Material shall be dispatched on door delivery basis without consignee copy) • Packing list • Original GST compliance certificate • MRC/POD/Receipted LR/RR/GR copy (as per proof of delivery of material at BHEL Project site) 	

39.	BREACH OF CONTRACT, REMEDIES AND TERMINATION:	<p>The following shall amount to breach of contract:</p> <p>I. Non-supply of material/ non-completion of work by the Supplier/Vendor within scheduled delivery/ completion period as per contract or as extended from time to time.</p> <p>II. The Supplier/Vendor fails to perform as per the activity schedule and there are sufficient reasons even before expiry of the delivery/ completion period to justify that supplies shall be inordinately delayed beyond contractual delivery/ completion period.</p> <p>III. The Supplier/Vendor delivers equipment/ material not of the contracted quality.</p> <p>IV. The Supplier/Vendor fails to replace the defective equipment/ material/ component as per guarantee clause.</p> <p>V. Withdrawal from or abandonment of the work by the Supplier/Vendor before completion as per contract.</p> <p>VI. Assignment, transfer, subletting of Contract by the Supplier/Vendor without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.</p> <p>VII. Non-compliance to any contractual condition or any other default attributable to Supplier/Vendor.</p> <p>VIII. Any other reason(s) attributable to Vendor towards failure of performance of contract. In case of breach of contract, BHEL shall have the right to terminate the Purchase Order/ Contract either in whole or in part thereof without any compensation to the Supplier/Vendor.</p> <p>IX. Any of the declarations furnished by the contractor at the time of bidding and/ or entering into the contract for supply are found untruthful and such declarations were of a nature that could have resulted in non-award of contract to the contractor or could expose BHEL and/ or Owner to adverse consequences, financial or otherwise.</p> <p>X. Supplier/Vendor is convicted of any offence involving corrupt business practices, antinational activities or any such offence that compromises the business ethics of BHEL, in violation of the Integrity Pact entered into with BHEL has the potential to harm the overall business of BHEL/ Owner.</p> <p>Note-Once BHEL considers that a breach of contract has occurred on the part of Supplier/Vendor, BHEL shall notify the Supplier/Vendor by way of notice in this regard. Contractor shall be given an opportunity to rectify the reasons causing the breach of contract within a period of 14 days. In case the contractor fails to remedy the breach, as mentioned in the notice, to the satisfaction of BHEL, BHEL shall have the right to take recourse to any of the remedial actions available to it under the relevant provisions of contract.</p> <p>Remedies in case of Breach of Contract.</p> <p>i) Wherein the period as stipulated in the notice issued under above clause has expired and Supplier/Vendor has failed to remedy the breach, BHEL will have the right to terminate the contract on the ground of "Breach of Contract" without any further notice to contractor.</p> <p>ii) Upon termination of contract, BHEL shall be entitled to recover an</p>	
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		<p>amount equivalent to 10% of the Contract Value for the damages on account of breach of contract committed by the Supplier/Vendor. This amount shall be recovered by way of encashing the security instruments like performance bank guarantee etc available with BHEL against the said contract. In case the value of the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the Supplier/Vendor, retention amount, from the money due to the Supplier/Vendor etc. with BHEL) or the other legal remedies shall be pursued.</p> <p>iii) wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case no security instruments are available or the value of the security instruments available is less than 10% of the contract value, the 10% of the contract value or the balance amount, as the case may be, will be recovered in all or any of the following manners:</p> <p>iv) In case the amount recovered under sub clause (a) above is not sufficient to fulfil the amount recoverable then; a demand notice to deposit the balance amount within 30 days shall be issued to Supplier/Vendor.</p> <p>v) If Supplier/Vendor fails to deposit the balance amount within the period as prescribed in demand notice, following action shall be taken for recovery of the balance amount:</p> <p>a) from dues available in the form of Bills payable to defaulted Supplier/Vendor against the same contract.</p> <p>b) If it is not possible to recover the dues available from the same contract or dues are insufficient to meet the recoverable amount, balance amount shall be recovered from any money(s) payable to Supplier/Vendor under any contract with other Units of BHEL including recovery from security deposits or any other deposit available in the form of security instruments of any kind against Security deposit or EMD.</p> <p>vi) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted supplier/Vendor.</p> <p>vii) It is an agreed term of contract that this amount shall be a genuine pre-estimate of damages that BHEL would incur in completion of balance contractual obligation of the contract through any other agency and BHEL will not be required to furnish any other evidence to the Supplier/Vendor for the purpose of estimation of damages.</p> <p>viii) In addition to the above, imposition of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.</p> <p>Note:</p> <p>1) The defaulting Supplier/Vendor shall not be eligible for participation in any of the future enquiries floated by BHEL to complete the balance work. The defaulting contractor shall mean and include:</p> <p>(a) In case defaulted Supplier/Vendor is the Sole Proprietorship Firm,</p>	
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		<p>any Sole Proprietorship Firm owned by same Sole Proprietor.</p> <p>(b) In case defaulted Supplier/Vendor is The Partnership Firm, any firm comprising of same partners/ some of the same partners ; or sole proprietorship firm owned by any partner(s) as a sole proprietor.</p>	
40.	Suspension of Business Dealings with Suppliers / Contractors:	<p>The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms / principal / agents, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.</p> <p>If any bidder / supplier / contractor during pre-tendering / tendering / post tendering / award / execution / post-execution stage indulges in any act, including but not limited to, mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or tampers the tendering process or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860(Bhartiya Nyaya Samhita 2023) or any other law in force in India, or does anything which is actionable under the Guidelines for Suspension of Business dealings, action may be taken against such bidder / supplier / contractor as per extant guidelines of the company available on www.bhel.com and / or under applicable legal provisions. Guidelines for suspension of business dealings is available in the webpage: http://www.bhel.com/vender_registration/vender.php.</p>	
41.	Settlement of Dispute, CONCILIATION & ARBITRATION	<p>Settlement of Dispute</p> <p>If any dispute or difference of any kind whatsoever shall arise between BHEL and the Supplier/Vendor, arising out of the contract for the performance of the work whether during the progress of contract termination, abandonment or breach of the contract, it shall in the first place referred to Designated Officer / IEM for amicable resolution by the parties. Designated Officer / IEM who within 60 days after being requested shall give written notice of his decision to the contractor. Save as hereinafter provided, such decision in respect of every matter so referred shall forthwith be given effect to by the Supplier/Vendor who shall proceed with the work with all due diligence, whether he or BHEL desires to resolve the dispute as hereinafter provided or not. If after the Designated Engineer has given written notice of this decision to the party and no intention to pursue the dispute has been communicated to him by the affected party within 30 days from the receipt of such notice, the said decision shall become final and binding on the parties. In the event the Supplier/Vendor being dissatisfied with any such decision or if amicable settlement cannot be reached then all such disputed issues shall be resolved through conciliation in terms of the BHEL Conciliation Scheme 2018 as per 'CONCILIATION' Clause.</p> <p>CONCILIATION:</p> <p>Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the "Dispute") shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure as per BHEL Conciliation Scheme 2018. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in - "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com).</p> <p>Note: Ministry of Finance has issued OM reference No. 1/2/24 dated</p>	

		<p>03.06.2024 regarding “Guidelines for Arbitration and Mediation in Contracts of Domestic Public Procurement. In the said OM it has been recommended that Government departments/ Entities/agencies are to encourage mediation under the Mediation Act. 2023. The said Act has not yet been notified by the Government. Therefore, the clause “Settlement of Disputes” shall be modified accordingly as and when the Mediation Act 2023 gets notified.</p> <p>ARBITRATION:</p> <p>Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided herein above or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract (hereinafter referred to as the ‘Dispute’), then, either Party may, refer the disputes to Arbitral Institution and such dispute to be adjudicated by Sole Arbitrator appointed in accordance with the Rules of said Arbitral Institution.</p> <p>A party willing to commence arbitration proceeding shall invoke Arbitration Clause by giving notice to the other party in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the ‘Notice’) before referring the matter to arbitral institution. The Notice shall be addressed to the Head of the Region, Power Sector/ Unit, BHEL, executing the Contract and shall contain the particulars of all claims to be referred to arbitration with sufficient detail and shall also indicate the monetary amount of such claim including interest, if any.</p> <p>After expiry of 30 days from the date of receipt of aforesaid notice, the party invoking the Arbitration shall submit that dispute to the Arbitral Institutions (shall be identified by the contract issuing agency) and that dispute shall be adjudicated in accordance with their respective Arbitration Rules. The matter shall be adjudicated by a Sole Arbitrator who shall necessarily be a Retd Judge having considerable experience in commercial matters to be appointed/nominated by the respective institution. The cost/expenses pertaining to the said Arbitration shall also be governed in accordance with the Rules of the respective Arbitral Institution. The decision of the party invoking the Arbitration for reference of dispute to a specific Arbitral institution for adjudication of that dispute shall be final and binding on both the parties and shall not be subject to any change thereafter. The institution once selected at the time of invocation of dispute shall remain unchanged.</p> <p>The fee and expenses shall be borne by the parties as per the Arbitral Institutional rules.</p> <p>The Arbitration proceedings shall be in English language and the seat and venue of Arbitration shall be at the court(s) of Haridwar.</p> <p>Subject to the above, the provisions of Arbitration & Conciliation Act 1996 and any amendment thereof shall be applicable. All matters relating to this Contract and arising out of invocation of Arbitration clause are subject to the exclusive jurisdiction of the Court(s) situated at Haridwar , shall have exclusive jurisdiction.</p> <p>Notwithstanding any reference to the Designated Engineer or Conciliation or</p>	
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		<p>Arbitration herein, a. the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree. Settlement of Dispute clause cannot be invoked by the Contractor, if the Contract has been mutually closed or 'No Demand Certificate' has been furnished by the Contractor or any Settlement Agreement has been signed between the Employer and the Contractor.</p> <p>It is agreed that Mechanism of resolution of disputes through arbitration shall be available only in the cases where the value of the dispute is less than Rs. 10 Crores.</p> <p>In case the disputed amount Claim, Counter claim including interest is Rs. 10 crores and above, the parties shall be within their rights to take recourse to remedies other than Arbitration, as may be available to them under the applicable laws after prior intimation to the other party. Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof as amended from time to time, shall apply to the arbitration proceedings under this clause.</p> <p>In case, multiple arbitrations are invoked (whether sub-judice or arbitral award passed) by any party to under this contract, then the cumulative value of claims (including interest claimed or awarded) in all such arbitrations shall be taken in account while arriving at the total claim in dispute for the subject contract for the purpose of clause mentioned above. Disputes having cumulative value of less than 10 crores shall be resolved through arbitration and any additional dispute shall be adjudicated by the court of competent jurisdiction.</p>	
42.	CONFLICT OF INTEREST AMONG BIDDERS/ AGENTS	<p>A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:</p> <p>a) they have controlling partner (s) in common; or</p> <p>b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or</p> <p>c) they have the same legal representative/agent for purposes of this bid; or</p> <p>d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, or</p> <p>e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid; or</p> <p>f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:</p> <ol style="list-style-type: none"> 1. The principal manufacturer directly or through one Indian agent on his behalf; and 2. Indian/foreign agent on behalf of only one principal, or <p>g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid, or</p> <p>h) In case of a holding company having more than one independently</p>	

		manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business. "													
43.	MICRO AND SMALL ENTERPRISES (MSE):	<p>Any Bidder falling under MSE category shall furnish the following details & submit documentary evidence/ Govt. Certificate etc. in support of the same along with their techno-commercial offer.</p> <table border="1"> <tr> <th>Type under MSE</th><th>SC/ST owned</th><th>Women owned</th><th>Others (exclud SC/ ST & Wor Owned)</th></tr> <tr> <td>Micro</td><td></td><td></td><td></td></tr> <tr> <td>Small</td><td></td><td></td><td></td></tr> </table> <p>Note: If the bidder does not furnish the above, offer shall be processed construing that the bidder is not falling under MSE category.</p> <p>a) MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011-MA dtd. 09/11/2016 office of AS & DC, MSME) only if they submit along with the offer, attested copies of either Udyam Registration. Date to be reckoned for determining the deemed validity will be the last date of Technical Bid submission. Non-submission of supporting document in GeM portal will lead to consideration of their bids at par with other bidders. No benefits shall be applicable for this enquiry if the above required documents are not uploaded at the time of bid submission. Documents submitted by the bidder shall be verified by BHEL for rendering the applicable benefits.</p>	Type under MSE	SC/ST owned	Women owned	Others (exclud SC/ ST & Wor Owned)	Micro				Small				
Type under MSE	SC/ST owned	Women owned	Others (exclud SC/ ST & Wor Owned)												
Micro															
Small															
44.	JURISDICTION:	This contract shall be governed by the Law for the time being in force in the Republic of India. Subject to clause(s) mentioned above of this contract, the Civil Court having original Civil Jurisdiction at Haridwar shall alone have exclusive jurisdiction in regard to all matters in respect of the Contract.													
45.	Force Majeure	<p>"Force Majeure" shall mean circumstance which is: a) beyond control of either of the parties to contract, b) either of the parties could not reasonably have provided against the event before entering into the contract, c) having arisen, either of the parties could not reasonably have avoided or overcome, and d) is not substantially attributable to either of the parties And Prevents the performance of the contract, Such circumstances include but shall not be limited to: i) War, hostilities , invasion, act of foreign enemies. ii) Rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war. iii) Riot, commotion or disorder by persons other than the contractor's personnel and other employees of the contractor and sub-contractors. iv) Strike or lockout not solely involving the contractor's personnel and other employees of the contractor and sub-contractors. v) Encountering munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the contractor's use of such munitions, explosives, radiation or radio- activity. vi) Natural catastrophes such as earthquake, tsunami, volcanic activity, hurricane or typhoon, flood, fire, cyclones etc. vii) Epidemic, pandemic etc.</p> <p>The following events are explicitly excluded from Force Majeure and are</p>													

		<p>solely the responsibilities of the non-performing party: a) any strike, work-to-rule action, goslow or similar labour difficulty (b) late delivery of equipment or material (unless caused by Force Majeure event) and (c) economic hardship.</p> <p>If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within 15 (fifteen) days after the occurrence of such event.</p> <p>The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended by a period of time equal to period of delay caused due to such Force Majeure event.</p> <p>Delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall not</p> <p>i) Constitute a default or breach of the Contract. ii) Give rise to any claim for damages or additional cost expense occasioned thereby, if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure.</p> <p>BHEL at its discretion may consider short closure of contract after 1 year of imposition of Force Majeure in line with extant guidelines. In any case, Supplier/Vendor cannot consider deemed short-closure after 1 year of imposition of Force Majeure</p>	
46.	Cartel Formation	<p>The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/guidelines.</p>	
47.	Order of Precedence:	<p>In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:</p> <ol style="list-style-type: none"> Amendments/Clarifications/Corrigenda/Errata etc. issued in respect of the tender documents by BHEL. Buyer Added Bid Specific ATC GeM Bid Technical Conditions of Contract (TCC) GeM GTC 	

SPECIAL NOTE FOR BIDDERS:

- In the event of our customer order covering this tender being cancelled /placed on hold /otherwise modified, BHEL would be constrained to accordingly cancel / hold / modify the tender at any stage of execution.
- BHEL may negotiate the L1 rate, if not meeting our budget / estimated cost. BHEL may re-float the tender opened, if L1 price is not acceptable to BHEL even after negotiation.
- Any change in applicable rates of Tax or any other statutory levies (Direct / Indirect) or any new introduction of any levy by means of statute and its corresponding liability for the deliveries beyond the agreed delivery

- date for reasons not attributable to BHEL will be to vendors account. BHEL will not reimburse the same and any subsequent claim in this respect will be summarily rejected.
- d. BHEL reserves its right to reject an offer due to unsatisfactory past performance by the respective Vendor in the execution of any contract to any BHEL project / Unit.
 - e. The offers of the bidders who are under suspension and also the offers of the bidders, who engage the services of the banned firms /principal/agents, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.
 - f. Recovery / deduction as applicable as per Direct and Indirect taxes as notified by Govt. Of India from time to time will be made and information/certificate for such deduction/recoveries shall be provided by BHEL to the vendor.
 - g. If the delivery of supply as detailed above gets delayed beyond the delivery period, the Supplier/Vendor shall request for a delivery extension and BHEL at its discretion may extend the Contract. However, if any 'Delivery extension' is granted to the Supplier/Vendor for completion of supply, due to backlog attributable to the Supplier/Vendor, then it shall be without prejudice to the rights of BHEL to impose LD for the delays attributable to the Supplier/Vendor.
 - h. In case BHEL increase the quantity during currency of the contract in line with quantity variation clause of GeM bid, delivery extension on pro-rata basis shall be given for supply of these additional quantity.

Following documents are an integral part of this Tender Enquiry and endorsed copies of these documents (duly signed and stamped on each page, as a token of acceptance) are to be submitted/uploaded along with offer on GeM portal against this bid.

1. Please submit replica of Price schedule (without prices) showing "quoted" in place of price along with techno-commercial bid (Part-I).
2. Please submit signed & Stamped copy (each page) of duly filled of confirmation column of "Buyers Specific Additional Terms & Conditions (ATC)" and its clause wise supporting documents where required.
3. Please submit signed & stamped copy (each page) for qualifying PQR with proper filled information and related supporting documents as mentioned in PQR.
4. Please submit signed & stamped copy (each page) of QAP No. QA/EHA/001).
5. Please submit signed & stamped copy (each page) of Integrity Pact "AASSPIPR03 dtd 01/04/2022.
6. Please submit certificate of Minimum local content as specified in the Make In India Certificate of the tender.

Format for preference to Make in India order

Certificate

In line with Government Public Procurement Order No. P-45021/2/2017-PP (BE-II) dated 04.06.2020, we hereby certify that we M/s _____
(supplier name) are local supplier. The percentage of local content in the items _____ offered by us against Enquiry No. _____ is _____% (percentage).

Details of location at which local value addition will be made is as follows:

We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

The Certificate shall be from the Cost Auditor / CA of the Company.

BANK GUARANTEE FOR PERFORMANCE SECURITY

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at _____ through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) with its registered office at _____ hereinafter referred to as the 'Vendor / Contractor / Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated valued at Rs..... (Rupees -----)/FC.....(in words.....) for (hereinafter called the 'Contract') and the Vendor / Contractor / Supplier having agreed to provide a Contract Performance Bank Guarantee, equivalent to% (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

we, (hereinafter referred to as the Bank), having registered/Head office at and inter alia a branch at being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer any sum or sums upto a maximum amount of Rs ----- (Rupees -----) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor / Contractor / Supplier in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Vendor / Contractor / Supplier shall have no claim against us for making such payment.

We thebank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract/satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

WeBANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Vendor / Contractor / Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Vendor / Contractor / Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Vendor / Contractor / Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Vendor / Contractor / Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Vendor / Contractor / Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Vendor / Contractor / Supplier 's liabilities.

This Guarantee shall remain in force upto and including..... and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Vendor / Contractor / Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before thewe shall be discharged from all liabilities under this guarantee thereafter.

This Bank Guarantee shall be governed, construed and interpreted in accordance with the laws of India.

Courts at shall alone have exclusive jurisdiction over any matter arising out of or in connection with this Bank Guarantee

We, BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed.....
- b) This Guarantee shall be valid up to
- c) Unless the Bank is served a written claim or demand on or before _____ all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of
(Name of the Bank)

Dated.....

Place of Issue.....

¹ NAME AND ADDRESS OF EMPLOYER I.e Bharat Heavy Electricals Limited

² NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.

³ DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE

⁴ CONTRACT VALUE

⁵ PROJECT/SUPPLY DETAILS

⁶ BG AMOUNT IN FIGURES AND WORDS

⁷ VALIDITY DATE

⁸ DATE OF EXPIRY OF CLAIM PERIOD

Note:

1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.
2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Vendor/Contractor/Supplier /Bank issuing the guarantee.

424

INTEGRITY PACT**Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____ (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for _____

_____ (hereinafter referred to as "Contract"). The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint panel of Independent External Monitor(s) (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during participation in the tender process and during the contract execution.

- 923
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process, terminate the contract, if already awarded, exclude from future business dealings and/ or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 - Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above, the Bidder(s)/ Contractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

C/22

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 6 - Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity Pact or violate its provisions.

Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 -Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs sufficient information about all meetings among the parties related to the Contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the IEMs the option to participate in such meetings.

421

- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a Bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some Bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the Principal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code / Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.


Section 9 - Pact Duration

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact is signed by both the parties till the final completion of contract for successful Bidder, and for all other Bidders 6 months after the Contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

C/20

Section 10 - Other Provisions

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- 10.6 In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.


For & On behalf of the Principal
(Office Seal)

(RAKESH KUMAR)
MGR - PDX/BOT
BHEL/HOR

For & On behalf of the Bidder/ Contractor
(Office Seal)

Place HARIDWAR
Date _____

Witness: _____
(Name & Address) _____

Witness: _____
(Name & Address) _____

Framework Confidentiality Agreement cum Undertaking

This Agreement made on this the _____ day of (month) _____ 20____
("Effective Date") by and between

M/s BHARAT HEAVY ELECTRICALS LIMITED, having registered office at "BHEL House", Siri Fort, New Delhi – 110049 (India), acting through its _____ Unit (hereinafter may be referred to as "BHEL" or "the Company").

And

M/s _____ (address) _____
represented by authorized representative Sri _____ (herein after referred to as the "Supplier").

The Supplier and the Company may, unless the context otherwise requires, hereinafter be collectively referred to as "Parties" or singly as the "Party".

RECITALS

Whereas, BHEL is engaged in the design, engineering, manufacturing, construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable energy, Oil & Gas and Defence and providing associated services to varied customers in relation to which BHEL/its affiliates own valuable information of a secret and confidential nature.

Whereas the Company may, in connection with Contract(s) (as defined hereunder) placed or to be placed upon the Supplier, or otherwise, from time to time, make available, Technical Information as is defined hereunder.

And Whereas BHEL is willing to provide such Technical Information to the Supplier from time to time and the Supplier understands and acknowledges that such Technical Information is valuable for the Company and as such is willing to protect confidentiality of such information, subject to the terms and conditions set out hereunder.

Now therefore, in view of the foregoing premises and in consideration of the mutual covenants and agreements hereinafter set forth, the Parties agree as under:

1. Definitions:

Unless the context so requires, in this Agreement, the following terms will bear the meaning ascribed to the said term in this clause.

- A. **"Contract"** means the Contract entered into with a Supplier and includes a Purchase Order, or a Work Order for procurement of any goods or for provision of any services.
- B. **"Effective Date"** means the date of this Agreement as mentioned in the preamble of this Agreement.

- C. **“Supplier”** includes a Contractor or a Vendor of the Company whether for supplying of goods or for providing any services under a Contract or both.
 - D. **“Technical Information”** includes Drawings, and/or Product Standards and/or Specifications and/or Corporate / Plant Specifications and/or Technological Process Sheets and/or Technical Data Sheets and/or Jigs & Fixtures and/or Pattern & Dies and/or Special Gauges and/or Tools etc. belonging to or wherein the Company has acquired from a third party a right of user and includes any improvement thereto from time to time whether carried out by the Company or by the Supplier.
 - E. **“Intended Purpose”** means the purpose for which the Technical Information is provided to the Supplier under or in connection with a Contract.
 - F. **“Improvement”** includes any modification made to, or adaptation of, the Technical Information which enhances or is calculated to enhance the performance (whether in terms of effectiveness or in terms of efficiency or both) of the product and/or the service to be provided by the Supplier under a Contract.
2. This Agreement shall come into force/deemed to have come into force, as the case may be, on the Effective Date; or, on the first date when the Technical Information or any part thereof is provided by BHEL to the Supplier; whichever is earlier.
3. **Agreement deemed to be incorporated in each Contract:** Unless and to the extent otherwise stipulated in the Contract, the conditions of this Agreement are deemed to be incorporated in all Contracts which may be entered into between the Company and the Supplier. Further, unless otherwise stipulated, the obligations under this Agreement are and will be independent of the obligations under the Contracts and such obligations of the Supplier hereunder will remain of full effect and validity notwithstanding that the period of validity of the Contracts has expired by efflux of time stipulated therein; or, the contract has been discharged by performance or breach; or, the termination of the Contracts for any reason whatsoever.
4. **Ownership:**
- 4.1 The Company may, from time to time, make available to the Supplier, Technical Information on a non-exclusive basis by way of loan.
- 4.2 The Supplier acknowledges and agrees that all Technical Information and copies thereof that are or may be provided by the Company to the Supplier, are and shall remain the property of BHEL or that of the concerned entity from whom BHEL has obtained the Technical Information and such Technical Information are and shall constitute trade secrets of the BHEL. Nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any patent, copyright or design or any other intellectual property rights of whatsoever description that subsists or may hereinafter exist in the Technical Information. Furthermore, nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any license or rights of use of such patent, copyright or design or any other

intellectual property rights of whatsoever description which may now or hereafter exist in the Technical Information except for use of the Technical Information strictly in accordance with this Agreement and the Contract and/or as directed in writing by the Company, solely for the Intended Purpose under the Contract.

4.3 Neither Party is obligated by or under this Agreement to purchase from or provide to the other Party any service or product and that any such purchase/sale of any product and/or service by one Party to the other Party will be governed by the Contract if any, that may be entered into by and between the Company and the Supplier.

4.4 The Supplier is/has been made well aware and acknowledges that the Technical Information being/which may be shared with it by the Company has been either generated by the Company by incurring huge investment and cost or obtained from foreign collaborators under Technical Collaboration Agreement (TCA) with stringent confidentiality conditions.

4.5 The Supplier agrees and undertakes to adhere to confidentiality requirements as applicable to BHEL under a TCA and also ensure that the confidentiality requirements are adhered to by all its concerned employees or sub-contractors/suppliers (where permitted to be engaged by BHEL). Any damages, losses, expenses of any description whatsoever, arising out of or in connection with a breach of the confidentiality requirements under a TCA owing to any act or omission on the part of the Supplier or its employees or sub-contractors/suppliers that is claimed by a foreign collaborator from the Company shall be wholly borne by the Supplier and it shall keep BHEL fully indemnified in this behalf. The demand by the Company shall be conclusive upon the Supplier who shall thereupon forthwith pay to the Company without demur, dispute or delay the amount as demanded without demanding any further proof thereof.

4.6 The Supplier agrees and undertakes that unless so decided and advised by the Company in writing all rights/title to any Improvement to the Technical Information shall vest in the Company. The Supplier undertakes and agrees to inform forthwith to the Company of any such Improvement made to the Technical Information and transfer all drawings/documents or other materials connected with such Improvement to the Company and also agrees to fully cooperate with the Company for protecting the Company's interests in such Improvement in the Technical Information including but not limited to obtaining necessary protection for the intellectual property rights in such improvement, if so desired by the Company. If a question arises whether a modification amounts to Improvement to the Technical Information, the same shall be decided by the Company and such decision shall be final and binding upon the Supplier.

5. Use and Non-Disclosure:

5.1 Unless otherwise stipulated by the Company, all Technical Information made available to the Supplier, by the Company shall be treated as Confidential irrespective of whether the same is marked or otherwise denoted to be Confidential or not.

- 5.2 The Supplier undertakes and agrees that the Technical Information in its possession shall be held in strict confidence and will be used strictly in accordance with this Agreement and solely for the Intended Purpose under the Contract. Use of the Technical Information for any other purpose other than Intended Purpose is prohibited.
- 5.3 In particular, the Supplier shall not use Technical Information or any Improvement in its possession for the manufacture or procurement of the Product(s) or components or parts thereof or use the Technical Information or any portion thereof or any modification or adaptation thereof in any form to provide any product and/or service to any third party, without the prior written consent of the Company.
- 5.4 The Supplier shall not disclose any of such Technical Information to any third party without the prior written consent of the Company. The Supplier agrees that without prior written consent of the Company, the Supplier shall not disclose to a third party about the existence of this Agreement, or of the fact that it is/was in possession of or has experience in the use of any Technical Information nor shall the Supplier share in any manner whatsoever, with a third party, the name or details of any Contract(s) awarded by the Company to it or performed by the Supplier or the scope of work thereof or share any document or correspondence by and between the Company and the Supplier in or in connection with this Agreement or such Contract(s). Notwithstanding what is stated elsewhere, the overall responsibility of any breach of the confidentiality provisions under this Agreement shall rest with the Supplier.
- 5.5 The Supplier undertakes and agrees not to make copies or extracts of and not to disclose to others any or all of the Technical Information in its possession, except as follows:
- (a) The Supplier may disclose the Technical Information to such of its officers and employees strictly to the extent as is necessary for such officer or employee for the Intended Purpose, provided that the Confidential Information (or copies thereof) disclosed shall be marked clearly as the confidential and proprietary information of Company and that such officers and employees shall similarly be bound by undertakings of confidence, restricted use and non-disclosure in respect of the Technical Information. The Supplier shall be responsible for any breach of such confidentiality provisions by such officers and employees.
 - (b) With the prior written consent of Company, the Supplier may disclose for the Intended Purpose such Technical Information as is provided for in such consent to such of its professional advisers: consultants, insurers and subcontractors who shall be similarly bound by undertakings of confidence, restricted use and non-disclosure in respect of such Technical Information.
 - (c) The Supplier shall not be prevented to make any disclosure required by (i) order of a court of competent jurisdiction or (ii) any competent regulatory authority or agency where such disclosure is required by law, provided that where the Supplier

intends to make such disclosure, it shall first consult Company and take all reasonable steps requested by it to minimize the extent of the Technical Information disclosed and to make such disclosure in confidence and also shall cooperate with the Company in seeking any protective order or any other remedy from proper authority in this matter.

6. Exceptions:

The obligations of the Supplier pursuant to the provisions of this agreement shall not apply to any Confidential Information that:

- a) was/is known to, or in the possession of the Supplier prior to disclosure thereof by the Company;
- b) is or becomes publicly known, otherwise than as a result of a breach of this agreement by the Supplier.
- c) is developed independently of the Disclosing Party by the Supplier in circumstances that do not amount to a breach of the provisions of this Agreement or the Contract;
- d) is received from a third party in circumstances that do not result in a breach of the provisions of this Agreement.

7. The obligation of maintaining confidentiality of the Technical Information on each occasion, shall subsist for the entire duration during which the Technical Information / equipment is in possession of the Supplier and shall thereafter subsist for a further period of --- years from the date when the complete Technical Information has been returned to the Company and if Technical Information has been returned in portions on different dates then, the period of ---- years will be reckoned from the date when the last portion of the Technical Information has been returned. Notwithstanding the expiry of the confidentiality obligation, the obligation of the Supplier under clause 5.4 shall continue to subsist for a further period of ----- years.

8. Warranties & Undertakings:

a) The Supplier undertakes to ensure the due observance of the undertakings of confidence, restricted use and non-disclosure by its persons to whom it discloses or releases copies or extracts of the Technical Information.

b) The Supplier shall keep the Technical Information or improvement made therein properly segregated and not mix up the same with any other material/documents belonging to him/it or to any other third party.

c) The Supplier further undertakes that he/it shall not hypothecate or give on lease or otherwise alienate or do away with any of the Technical Information and/or equipment of the Company, made available to him/it, and undertakes that he/it shall hold the same as a trustee, in capacity of custodian thereof and use/utilise the same solely for the purpose of executing the Contract awarded by the Company.

d) The Supplier further undertakes that he/it shall return all the equipment and/or Technical Information as far as practicable in the same condition in which the same was made available to him/it by the Company together with any Improvement thereon and the documents connected with such Improvement, to the Company forthwith upon completion of the scope

of work or Contract for which such Technical Information was provided by the Company to it or as directed by the Company together with a confirmation by way of an affidavit or in such manner as directed by the Company that it has not retained any equipment and/or Technical Information/Improvement thereof. In case any such equipment and/or Technical Information or Improvement thereof shall remain in his possession or is not capable of being returned, the retention and use of such Technical Information or Improvement thereto shall continue to be governed by this Agreement.

e) The Supplier undertakes to indemnify the Company for all the direct, indirect and/or consequential losses, damages, expenses whatsoever including any consequential loss of business, profits suffered by the Company owing to breach by the Supplier of its obligations under this Agreement and/or the confidentiality requirements, if any, contained in the Contract and that the Supplier hereby agrees that the decision of the Company in all such or any such matter/s shall be final and binding on the Supplier. On mere written demand of the Company, the Supplier shall forthwith and without demur or delay pay to the Company any such sum as determined by the Company as the amount of loss or damage or expense which has been suffered by the Company. The Supplier agrees that the Company shall be entitled to withhold and appropriate any amount payable to the Supplier under any Contract then existing between the Company and the Supplier, in case the Supplier fails to make payment, in terms of the written demand, within 7 days thereof. Without prejudice to the foregoing actions, in respect to any breach of this Agreement, the Company shall be entitled to take any other action against the Supplier as per applicable laws, the Contract, Company's applicable policies, guidelines rules, procedures, etc.

9. Without prejudice to any other mode of recovery as may be available to the Company for recovery of the amount determined as due as per Clause 8(e) hereinabove, the Company shall have a right to withhold, recover and appropriate the amount due towards such losses, damages, expenses, from any amount due to the Supplier in respect of any other Contract (s) placed on him/it by any department/office/Unit/Division of the said Company.

10. Arbitration & Conciliation:

a) In case amicable settlement is not reached between the Parties, in respect of any dispute
or

difference or claim or controversy arising out of the formation, breach, termination, validity or execution of the Contract(or Agreement) or the respective rights and liabilities of the parties or in relation to interpretation of any provision of the Contract or in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference or controversy or claim, (except as to any matters, the decision of which is specifically provided for therein) to the sole arbitration by the arbitrator appointed by Head/In-Charge of the Unit/Division/Region.

b) The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the parties to the dispute.

c) Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India), or other statutory modifications or re enactments thereof and the rules made thereunder and for

the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be at ----- **(Insert the name of the city/town of the concerned BHEL Unit/Division).**

d) In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred to by either party to the arbitration of one of the arbitrators in the department of public enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the parties hereto finally and conclusively.

e) Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the Supplier shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner.

11. Governing Law & Jurisdiction:

This Agreement shall be governed by and be construed as per applicable Indian Laws in force at the relevant time.

Subject to clauses 10(a) and 10(d) hereinabove, all matters in connection with the subject agreement shall be subject to exclusive jurisdiction of Courts situated at -----**(insert the name of the place where the BHEL Unit/Division is located)**

SIGNATURE

WITNESSES

1.

Name

Address:

2.

Name:

Address:

1. General Information		2. Identification of the Project		3. Project Description, Purpose and Objectives		4. Project Management		5. Project Budget		6. Project Risk	
Item	Description	Item	Description	Item	Description	Item	Description	Item	Description	Item	Description
1.1	Project Name	2.1	Project Title	3.1	Project Purpose	4.1	Project Manager	5.1	Project Budget	6.1	Project Risk
1.2	Project Number	2.2	Project ID	3.2	Project Objectives	4.2	Project Sponsor	5.2	Project Funding	6.2	Project Impact
1.3	Project Start Date	2.3	Project End Date	3.3	Project Scope	4.3	Project Steering Committee	5.3	Project Costs	6.3	Project Benefits
1.4	Project End Date	2.4	Project Status	3.4	Project Deliverables	4.4	Project Communication	5.4	Project Revenue	6.4	Project Risks
1.5	Project Location	2.5	Project Phase	3.5	Project Stakeholders	4.5	Project Reporting	5.5	Project Profit	6.5	Project Opportunities
1.6	Project Lead	2.6	Project Milestones	3.6	Project Constraints	4.6	Project Monitoring	5.6	Project Loss	6.6	Project Threats
1.7	Project Team	2.7	Project Deliverables	3.7	Project Assumptions	4.7	Project Evaluation	5.7	Project Net Income	6.7	Project Challenges
1.8	Project Budget	2.8	Project Deliverables	3.8	Project Risks	4.8	Project Review	5.8	Project Cash Flow	6.8	Project Success Factors
1.9	Project Funding	2.9	Project Deliverables	3.9	Project Opportunities	4.9	Project Closure	5.9	Project Balance Sheet	6.9	Project Lessons Learned
1.10	Project Risk	2.10	Project Deliverables	3.10	Project Threats	4.10	Project Post-Mortem	5.10	Project Income Statement	6.10	Project Best Practices
1.11	Project Impact	2.11	Project Deliverables	3.11	Project Challenges	4.11	Project Final Report	5.11	Project Statement of Work	6.11	Project Key Takeaways
1.12	Project Benefits	2.12	Project Deliverables	3.12	Project Success Factors	4.12	Project Final Review	5.12	Project Contract	6.12	Project Final Thoughts
1.13	Project Risks	2.13	Project Deliverables	3.13	Project Challenges	4.13	Project Final Report	5.13	Project Contract	6.13	Project Final Thoughts
1.14	Project Opportunities	2.14	Project Deliverables	3.14	Project Success Factors	4.14	Project Final Review	5.14	Project Contract	6.14	Project Final Thoughts
1.15	Project Threats	2.15	Project Deliverables	3.15	Project Challenges	4.15	Project Final Report	5.15	Project Contract	6.15	Project Final Thoughts
1.16	Project Success Factors	2.16	Project Deliverables	3.16	Project Success Factors	4.16	Project Final Review	5.16	Project Contract	6.16	Project Final Thoughts
1.17	Project Challenges	2.17	Project Deliverables	3.17	Project Challenges	4.17	Project Final Report	5.17	Project Contract	6.17	Project Final Thoughts
1.18	Project Best Practices	2.18	Project Deliverables	3.18	Project Success Factors	4.18	Project Final Review	5.18	Project Contract	6.18	Project Final Thoughts
1.19	Project Lessons Learned	2.19	Project Deliverables	3.19	Project Challenges	4.19	Project Final Report	5.19	Project Contract	6.19	Project Final Thoughts
1.20	Project Key Takeaways	2.20	Project Deliverables	3.20	Project Success Factors	4.20	Project Final Review	5.20	Project Contract	6.20	Project Final Thoughts



[illegible]

<div>adaniTM</div>		STANDARD QUALITY PLAN									Approved by QA			
		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 1 of 9							
SL No.	COMPONENT/ OPERATION	CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		INSPECTION AGENCY			REMARKS
					M	C/A					M	C	A	
1	2	3	4	5	6		7	8	9	*D	**10			11
1. Boughtout Items / Raw Material														
1.1	A) C.I. Frame & End Bracket/Shield/Base Frame (If Applicable)	Visual Check for defects	Major	Visual	100%	100%	Mfg. Works Drg.	No casting defects	MTC		P	V	V	Weld Repair On Cast Frame Is Not Acceptable.
		Tensile Strength & Brinell Hardness		Mech	1 Sample/ Heat	1 Sample/ Heat	IS 210	IS 210		√	P	V	V	
		Dimension		Meas	1 Sample/ Lot	1 Sample/ Lot				√	P	V	V	
		Chemical Properties		Chemical	1 Sample/ Lot	1 Sample/ Lot				√	P	V	V	
		Pressure Testing (Applicable for flame proof motors only)		Mech	1 Sample/ Lot	1 Sample/ Lot	IEC 60079-I	IEC 60079-I		√	P	V	V	
	B) Fab.Frame & End Bracket/ Base Frame (If Applicable)	Visual Check for defects	Major	Visual	100%	100%	Mfg. Works Drg.	Smooth Finish	MTC/ITR		P	V	V	
		Dimension		Measure	1 Sample/ Lot	1 Sample/ Lot		Mfg. Works Drg.		√	P	V	V	
		Tensile Strength & % Elongation		Mech	1 Sample/ Lot	1 Sample/ Lot	IS 2062	IS 2062		√	P	V	V	
		Heat Treatment (Applicable for thickness above 18 mm)		Thermal	100%	100%	ASME SEC 8 DIV. 1 & 2	ASME SEC 8 DIV 1 & 2		√	P	V	V	
		Chemical Composition		Chemical	1 Sample /Lot	1 Sample /Lot	IS 2062	IS 2062		√	P	V	V	
1.2	Electrical Steel Stamping For Stator & Rotor	Dimensions	Major	Measure	1 Sample /Batch	1 Sample /Batch	IS 648 / IS 649	IS 648 / IS 649	MTC	√	P	V	V	
		Burr Height		Measure						√	P	V	V	
		Material		Mech						√	P	V	V	
		Core Loss		Elect						√	P	V	V	
		Stacking Factor								√	P	V	V	
		Insulation Resistance		Elect						√	P	V	V	

<div>adani™</div>		STANDARD QUALITY PLAN									Approved by QA			
		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 2 of 9							
SL No.	COMPONENT/ OPERATION	CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		INSPECTION AGENCY			REMARKS
					M	C/A					M	C	A	
1	2	3	4	5	6		7	8	9	*D	**10			11
1.2	Electrical Steel Stamping For Stator & Rotor	Bend Test	Major	Measure	1 Sample/ Batch	1 Sample/ Batch	IS 648/IS 649	IS 648/IS 649	MTC	√	P	V	V	
		Coating Thickness		√						P	V	V		
		AC Magnetization		√						P	V	V		
1.3	Forged Shaft - Normalised (If Applicable)	Dimension & Visual	Major	Measure	100%	100%	Mfg. Works Drg.	Mfg. Works Drg.	ITR	√	P	V	V	Ultra sonic test is applicable for shaft dia 50mm & above. Refer Note- 2 At Page 11
		Chem. Composition	Major	Chemical	1 Sample / Heat	1 Sample / Heat	BS 970 IS 1570- 4SCB (N)	BS 970 IS 1570- 4SCB (N)	MTC	√	P	V	V	
		Mech Properties	Critical	Mech						√	P	V	V	
		I) % Elongation								√	P	V	V	
		II) Ultimate Tensile Strength								√	P	V	V	
		III) Hardness (If Applicable)								√	P	V	V	
		IV) Impact Test (If Applicable)								√	P	V	V	
		V) Yield Strength								√	P	V	V	
	Ultrasonic Test	Critical	NDT	100%	100%	ASTM A 388 & NOTE 2	ASTM A 388 & NOTE 2	NDT Report	√	P	V	V		
	Steel Shaft Rolled Bar (If Applicable)	Dimension	Major	Measure	100%	100%	Mfg. Works Drg.	Mfg. Works Drg.	MTC / ITR	√	P	V	V	Ultra sonic test is applicable for shaft dia 50mm & above.
		Mechanical Properties	Critical	Mech	1 Sample / Heat	1 Sample / Heat	IS 1570-II / AISI 431	IS 1570-II / AISI 431		√	P	V	V	
		Chemical Properties	Major	Chemical						√	P	V	V	
		Ultra Sonic Test	Critical	NDT			ASTM A-388 & NOTE 2	ASTM A-388 & NOTE 2	NDT Report	√	P	V	V	Refer Note- 2
1.3.1	Shaft Rib (If Applicable)	Chemical Comp.	Major	Visual	100%	100%	BS 970	BS 970	MTC	√	P	V	V	
		Mechanical Prop. (Tensile Strength & % Elongation)	Major	Measure	100%	100%				√	P	V	V	
		UT On Plates > 40Mm Thick	Major	NDT	100%	100%	ASTM A 435	ASTM A 435, (LAMINATION IN PLATE IS NOT ACCEPTABLE)	NDT Report	√	P	V	V	

<div>adani™</div>		STANDARD QUALITY PLAN												
		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 3 of 9							
SL No.	COMPONENT/ OPERATION	CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		INSPECTION AGENCY			REMARKS
					M	C/A					M	C	A	
1	2	3	4	5	6		7	8	9	*D	**10			11
1.4	Aluminum Die Cast Rotor (If Applicable)	Dimension (Core Length & Inner Diameter)	Major	Mech	100%	100%	Mfg. Works Drg.	Mfg. Works Drg.	MTC	√	P	V	V	
		Casting Defects	Major	Visual	100%	100%	No blow holes & crack	No blow holes & crack		√	P	V	V	
		Mechanical Properties of (Aluminum Ignot)	Major	Mech	1 Sample/ Lot	1 Sample/ Lot	IS 4026	IS 4026		√	P	V	V	
		Conductivity (of Aluminum Ignot)	Major	Elect						√	P	V	V	
		Chemical Composition	Major	Chemical						√	P	V	V	
		Aluminum Grade	Critical	Chemical						√	P	V	V	
1.5	Slip Ring (Applicable for slip ring motor only)	Dimension	Major	Measure	100%	100%	Mfg. Works Drg.	Mfg. Works Drg.	MTC	√	P	V	V	
		HV Test		Elect	100%	100%	Mfg. Works Std.	Mfg. Works Std.		√	P	V	V	
		Heat Sock Test		Elect	1 Sample / Lot	1 Sample / Lot				√	P	V	V	
1.6	Enamelled Copper Wire (If Applicable)	Dimension (Overall Diameter, Bare Diameter, Coating Thiickness, etc.)	Major	Measure	IS 13730	IS 13730	IS 13730	IS 13730	MTC	√	P	V	V	
		Elongation		Mech						√	P	V	V	
		Heat Shock		Mech						√	P	V	V	
		Resistance to Abrasion		Elect						√	P	V	V	
		Peel Test		Visual						√	P	V	V	
		Cut Through Test		Elect						√	P	V	V	
		Break Down Voltage @ Room Temperature		Elect						√	P	V	V	
		Mandrel Winding Test		Mech						√	P	V	V	
		Continuity Test (Pin Hole Test)		Elect						√	P	V	V	


<div>adani™</div>		STANDARD QUALITY PLAN												
		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 4 of 9							
		Approved by QA												
SL No.	COMPONENT/ OPERATION	CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		INSPECTION AGENCY			REMARKS
					M	C/A					M	C	A	
1	2	3	4	5	6		7	8	9	*D	**10			11
1.7	Double Glass Lapped Enamelled Copper Conductor (If Applicable)	Tensile Strength, % Elongation, Cu Purity, Oxygen Content & Flexibility, Hardness	Major	Verify	1 Sample/ Lot	1 Sample/ Lot	IS 10114	IS 10114	MTC	√	P	V	V	
		Breadk Down Voltage Test		1 Sample /Lot	1 Sample /Lot	√				P	V	V		
		Dimension				√				P	V	V		
		Resistivity				√				P	V	V		
1.8	High Conductivity Annealed Copper Strip Covered By Film Backed Mica, Paper Tape (If Applicable)	Dimension	Major	Measure	1 Sample / Lot	1 Sample / Lot	Mfr Std / Spec	Mfr Std / Spec	MTC	√	P	V	V	
		Chemical Composition		Chemical						√	P	V	V	
		Breadk Down Voltage Test		Elect						√	P	V	V	
		Tensile Strength		Mech						√	P	V	V	
		Resistivity		Elect						√	P	V	V	
		Springness		Measure						√	P	V	V	
1.9 Rotor Conductor For Sq. Cage Rotor														
1.9.1	Hard / Half Hard Drawn Copper Bar (If Applicable)	Dimension	Major	Measure	Sample	Sample	BS 1432/ BS 1433/ IS 1897	BS 1432/ BS 1433/ IS 1897	MTC	√	P	V	V	
		Conductivity		Elec						√	P	V	V	
		Mech Properties		Measure						√	P	V	V	
		Chemical Composition								√	P	V	V	
		Oxygen Content								√	P	V	V	
1.9.2	Forged Copper End Ring (If Applicable)	Dimension	Major	Measure	Sample	Sample	BS 6017	BS 6017	ITR	√	P	V	V	
		Conductivity		Elec	Sample/ Heat	Sample/ Heat			√	P	V	V		
		Chem. Composition		Chem	√	P			V	V				
		Ultrasonic Test	Major	NDT	100%	100%	ASME SEC 5	ASME SEC 5, NO DEFECT IS ALLOWED	MTC	√	P	V	V	

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		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 5 of 9							
SL No.	COMPONENT/ OPERATION						CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK				
					M	C/A					M	C	A	
1	2	3	4	5	6		7	8	9	*D	**10			11
1.10	Insulating Paper	Type of Paper	Major	Visual	IEC 60626	IEC 60626	IEC 60626	IEC 60626	MTC	√	P	V	V	
		Thickness		Mech						√	P	V	V	
		Tensile Strength		Mech						√	P	V	V	
		Thermal Properties		Thermal						√	P	V	V	
		Dielectric Strength (BDV)		Elect						√	P	V	V	
1.11	Mica Paper (If Applicable)	Thickness	Major	Measure	1 Sample/ BaTCh	1 Sample/ BaTCh	IS 10192	IS 10192	MTC		P	V	V	
		BDV Test		Elec							P	V	V	
		Shelf Life		Visual	100%	100%					P	V	V	
1.12	Rotor Turning	Dimesion	Major	Visual	100%	100%	App. Drg	APP. DRG	ITR		P	V	V	
1.13	Varnish	Shelf Life	Major	Visual	1 Sample/ Batch	1 Sample/ Batch	IS 10026	IS 10026	MTC	√	P	V	V	
		Colour & Appearance		Visual						√	P	V	V	
		Curing in Thin Layer		Visual						√	P	V	V	
		Solid Content		Measure						√	P	V	V	
		Compatibility with Thinner		Visual						√	P	V	V	
		Viscosity		Mech						√	P	V	V	
											P	V	V	
1.14	Single Pack Solvent Less Epoxy Resin	Applied Viscosity	Major	Measure	1 Sample / Lot	1 Sample / Lot	Manufactuer's Standard / Spec	Manufactuer's Standard / Spec	ITR		P	V	V	
		Gel Time									P	V	V	
1.15	Tape For Over Hang	Thickness & Width	Major	Measure	1 Sample/ BaTCh	1 Sample/ BaTCh	Manufactuer's Standard / Spec	Manufactuer's Standard / Spec	MTC		P	V	V	
		Glass Fiber Content		Test							P	V	V	
		High Voltage Test		Elect							P	V	V	
1.16	Glass Fibre Sleeving (If Applicable)	Bore Dia	Major	Measure	1 Sample/ BaTCh	1 Sample/ BaTCh	IS 11654 PT 2	IS 10192	MTC		P	V	V	
		Wall Thickness								P	V	V		
		High Voltage Test		Elec							P	V	V	
1.17	Epoxy Glass Laminated Sheet (Wedges) (If Applicable)	Thickness	Major	Measure	1 Sample/ BaTCh	1 Sample/ BaTCh	IS 10192	IS 10192	MTC		P	V	V	
		High Voltage Test									P	V	V	

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		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 6 of 9							
SL No.	COMPONENT/ OPERATION	CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		INSPECTION AGENCY			REMARKS
					M	C/A					M	C	A	
1	2	3	4	5	6		7	8	9	*D	**10			11
1.18	Bearing and Grease	Type & Make	Major	Visual	100%	100%	Mfg. Catalouge	As per plant standard/ drawing	ITR		P	V	V	
1.19	Space Heater (If Applicable)	High Voltage (2kV for 01 minute)	Major	Elec	100%	100%	Approved Datasheet	Withstood	ITR		P	V	V	
		Resistance						Supplier Spec			P	V	V	
		Insulation Resistance									P	V	V	
		Dimension									P	V	V	
1.20	R.T.D./B.T.D (If Applicable)	Insulation Resistance	Major	Elec	100%	100%	IS 2848	IS 2848	MTC		P	V	V	
		High Voltage (2kV for 01 minute)		Elec			Approved Datasheet	Withstood			P	V	V	
		Resistance		Elec			IS 2848	IS 2848			P	V	V	
		Pull Out Test		Mech			Mfg. Catalouge	Mfg. Catalouge			P	V	V	
1.21	B.T.D (Dial Type) (If applicable)	Check For Visual Damage	Major	Visual	100%	100%	Works Drawing	Works Drawing	MTC / ITR	√	P	V	V	
		Calibration		Verify						√	P	V	V	
1.22	Fan (M.S. / Plastic - If Applicable)	Dimension	Major	Measure	Sample	Sample	Works Drawing/ IS 2062	Works Drawing/ IS 2062	MTC		P	V	V	
		Chemical & Mechanical (For M.S.)		Test							P	V	V	
2 .In-Process Inspection														
2.1	Stator Frame	Dimension	Major	Measure	100%	100%	Mfg. Works Drg.	Mfg. Works Drg.	ITR		P	V	V	
		Appearance		Visual			Free from defects	Free from defects			P	V	V	
2.2	Stator & Rotor Core Building	Core Length & Inner diameter	Major	Measure	100%	100%	Mfg. Works Drg.	Mfg. Works Drg.	ITR		P	V	V	
		Slot Alignment		Visual							P	V	V	
		Core Rigidity									P	V	V	
		Cleanliness	Major	Visual							P	V	V	
		Stator & Rotor Dimension		Measure							P	V	V	
2.3	Wound Stator	Surge Test	Major	Elec	100%	100%	Works Std	Works Std	ITR		P	V	V	
		Insulation Resistance (Before & After HV)					IS 325	IS-325			P	V	V	
		High Voltage Test					Works Drg.	Withstood			P	V	V	
		Winding Resistance						Works Drg.			P	V	V	
2.4	Rotor Cage Assembly	Visual Test	Major	Visual	100%	100%	Works Std	Works Std	ITR		P	V	V	
		UT Of Brazed Cage Rotor		NDT							P	V	V	
		Dynamic Balancing (Residual Unbalance)		Visual			ISO 1940	ISO 1940			P	V	V	

<div>adani™</div>		STANDARD QUALITY PLAN												
		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 7 of 9							
											Approved by QA			
SL No.	COMPONENT/ OPERATION	CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		INSPECTION AGENCY			REMARKS
					M	C/A					M	C	A	
1	2	3	4	5	6		7	8	9	*D	**10			11
2.5	Varnish Impregnation	Preheating	Major	Measure	100%	100%	Mfr Std / Spec	Mfr Std / Spec	ITR		P	V	V	
		Curing Cycle									P	V	V	
		Baking Temperature									P	V	V	
		Pressure									P	V	V	
		Gel Time									P	V	V	
		Viscosity			02 Sample/ Shift	02 Sample/ Shift					P	V	V	
		Vacuum Pressure Impregnation (If Applicable)			Daily	Daily					P	V	V	
3. Final Motor														
3.1	Complete Motor	Location Of Terminal Box etc	Major	Visual	100%	100%	App GAD	App GAD	IR	√	P	V	V	
		Marking On Rating Plates & Earthing Arrangement					√			P	V	V		
		Shaft Run Out		Measure			IS 2223			√	P	V	V	
3.2	Final Assembly & General Check	Fitting Of Sub Assembly & Components	Major	Visual / Measure	100%	100%	Works Drg & Datasheet	Works Drg & Datasheet	IR	√	P	H	H	
		Fitting Of Accessories e.g. RTD, BTD, Heaters, etc.					BOM	Works Drg & Datasheet		√	P	H	H	
		Dimensional Check		Measure			GA DRG.			√	P	H	H	
3.3	Terminal Marking	General Check	Major	Visual	100%	100%	Works Drg.	Works Drg & Datasheet		√	P	H	H	
3.4	Acceptance Test	DC Resistance Measurement Of Stator Winding, Rotor Winding (for slip ring motor only), RTD, BTD & Space Heater at ambient Temp.	Critical	Elec	100%	100%	IS 325, IS 4029 IEC 60034	IS 325, IS 4029 IEC 60034		√	P	H	H	
		O.C. Voltage ratio of stator & rotor windings (for slip ring motor only)					IS 325, IS 4029 IEC 60034	IS 325, IS 4029 IEC 60034		√	P	H	H	

<div>adaniTM</div>		STANDARD QUALITY PLAN									Approved by QA			
		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 8 of 9							
SL No.	COMPONENT/ OPERATION	CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		INSPECTION AGENCY			REMARKS
1	2	3	4	5	M	C/A	7	8	9	*D	**10			11
3.4	Acceptance Test	IR Measurement Of Widg. Space Heater & RTD, BTD Before & After HV Test	Critical	Elec	100%	100%	IS-4722-1992	IS-4722-1992	IR	√	P	H	H	NOTE 1: Type Test Certificate. not Older Than Five Years from the date of award duly reviewed & accepted by Owner'S Engg For Similar Type, Size & Rating Of Motor shall be submitted along with Inspection Call. In Case The Type Test Is Specially Required As Per The Technical Spec., Same Shall Be Witnessed.
		No-Load Test at 90% 100% & 110% of rated voltage and measure no load power, current & no load speed.					IS 325, IS 4029 IEC 60034	√		P	H	H		
		Reduced voltage running up test (for squirrel cage motors)						√		P	H	H		
		Locked Rotor Test at rated Current & measure Voltage , Power						√		P	H	H		
		Polarization Index						√		P	H	H		
		High Voltage Test For Winding, RTD, BTD & Space Heater						Withstood		√	P	H	H	
		Over Speed Test At 120% Of Rated speed for 02 min						IS 325 & IEC 60034		√	P	H	H	
		Phase Sequence, Direction Of Rotation & Motor RPM						App Drg		√	P	H	H	
		Vibration Measurement at Rated Speed & Voltage		Mech			IS 12075, IS 325 & IEC 60034	IS 12075, IS 325 & IEC 60034		√	P	H	H	
		Noise Measurement at Rated Speed & Voltage					IS 12065, IS 325 & IEC 60034	IS 12065, IS 325 & IEC 60034		√	P	H	H	
		Visual Check, Dimension, & Cable Entry, Location Of Main Terminal Box		Visual			App Drg	App Drg		√	P	H	H	
		Marking On Rating Plate, Earthing Arrangement								√	P	H	H	
		Degree Of Protection		Verify			IS-12063	IS-12063	T.C	√	P	V	V	Test Certificate Shall Be Reviewed.

		STANDARD QUALITY PLAN								<div>Approved by QA</div>				
		ITEM : LT MOTOR					SQP NO: ADANI/QA/SQP/E/002 REV. NO.:02 DATE: 12.03.2016 PAGE: 9 of 9							
SL No.	COMPONENT/ OPERATION	CHARACTERISTICS	CATEGORY OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		INSPECTION AGENCY			REMARKS
					M	C/A				*D	M	C	A	
1	2	3	4	5	6		7	8	9		**10			11
3.5	Painting & Finishing	Finish, Shade, DFT & Adhesion	Major	Visual	100%	100%	App Drg & Datasheet	App Drg & Datasheet	IR	√	P	H	H	
<p>NOTE 2: ACCEPTANCE NORM FOR UT OF SHAFT:-</p> <p>1) CRACKS, FLAKES, SEAMS & LAPS ARE NOT ACCEPTABLE IN THE SHAFT FORGING.</p> <p>2) FOLLOWING DEFECTS IN THE OUTER REGION OF SHAFT BETWEEN 75% TO 100% OF SHAFT RADIUS ARE NOT ACCEPTABLE:-</p> <p>I) ANY DEFECT GIVING INDICATION LARGER THAN THAT FROM 2MM DIAMETER EQUIVALENT FLOW.</p> <p>II) GROUP OF DEFECT WITH MAX. INDICATION LESS THAN THAT FROM A 2 MM DIAMETER EQUIVALENT FLOW WHICH CANNOT BE SEPARATED AT TESTING SENSITIVITY, IF THE BACK ECHO IS REDUCED TO LESS THEN 70% OF FSH.</p> <p>III)THE DEFECTS GIVING INDICATIONS OF 1 TO 2 MM DIAMETER EQUIVALENT FLOW SEPARATED BY A DISTANCE LESS THEN FOUR TIMES THE SIZE OF THE LARGER OF THE ADJACENT FLOWS.</p> <p>3) FOLLOWING DEFECTS IN THE SHAFT BETWEEN CENTRE OF THE SHAFT TO 75% OF SHAFT RADIUS ARE NOT ACCEPTABLE:-</p> <p>I) ANY DEFECT GIVING INDICATION LARGER THAN THAT FROM 4 MM DIAMETER EQUIVALENT FLOW.</p> <p>II) GROUP OF DEFECT WITH MAX. INDICATION LESS THAN THAT FROM A 4 MM DIAMETER EQUIVALENT FLOW WHICH CANNOT BE SEPARATED AT TESTING SENSITIVITY, IF THE BACK ECHO IS REDUCED TO LESS THEN 50% OF FSH.</p> <p>III)THE DEFECTS GIVING INDICATIONS OF 2 TO 4 MM DIAMETER EQUIVALENT FLOW SEPARATED BY A DISTANCE LESS THEN FOUR TIMES THE SIZE OF THE LARGER OF THE ADJACENT FLOW..</p> <p>NOTE 3: THIS SQP IS APPLICABLE FOR 45 kW & ABOVE RATING MOTORS. BELOW 45 kW MOTORS, MANUFACTURER TO CARRYING OUT INTERNAL ROUTINE TEST AND TEST REPORT OF SAME TO BE SUBMITTED FOR REVIEW.</p> <p>LEGEND:- D* Records identified with tick (√) shall be essentially included by supplier & manufacturer in Quality Documentation package.</p> <p>** M: Manufacturer / Sub-Supplier, C: Main Supplier , A: Adani or their authorized representative.</p> <p>Use the following term as appropriate in columns 10. P: Perform, V: verification and H: Customer Hold Point to be witnessed and work shall not proceeded till it is witnessed and cleared in writing.</p> <p>Format of Record: MTC: Manufacturer/Sub-supplier Test Certificate, ITR: Inprocess Test Report/Record, IR: Inspection Report</p> <p>GENERAL NOTE:-</p> <p>- Manufacturer should have all the in house testing (Acceptance & Routine Test) facilities for LT Motor.</p> <p>- Testing Instruments used during Inspection must be calibrated from NABL accredited lab only. Instruments used during testing should be within valid calibration date.</p>														

		VENDOR LIST NO.	REV.	VALID	
		QA/VENDOR/C&I/001	00	TILL RELEASE OF NEXT REVISION	
Section: C&I					
Approved Vendor List of C&I Items for Projects					
C & I VENDOR LIST					
Sl. No	Item Name	Vendor Name	Location	BHEL Remarks (Category) A. BHEL Mfg. / B. Raw Material C. BOP Bought Outs	
1	DCS	Emerson	China	BHEL Mfg. (Valmet DNA)	
		Yokogava	China		
		Schineder	China		
		Honeywell	China		
2	VMAS	Vibrometer	China	BOP BOUGHT OUTS / BHEL Mfg.	
		Bently Nevada	China		
		Shinkawa	China		
		Beijing Envada	China		
3	Pressure &Differential /level Transmitter	Rosemount	China	BOP BOUGHT OUTS	
		Yokogawa	Japan/China		
		Siemens	China		
		ABB	China		
		E+H	Germany		
		Krohne	UK		
4	Pressure &Differential Pressure switch	SOR	USA	BOP BOUGHT OUTS	
		UE	USA		
		Ashcroft	USA		
		Magnetrol	USA		
5	Temperature elements along with Thermo well	SIC	China	BOP BOUGHT OUTS	
		SAIC	China		
		Tiankang	China		
6	PLC	ABB	USA	BOP BOUGHT OUTS	
		GE	USA		
		Siemens	Germany		
		Schneider	France		
7	Import electrical actuators	EMG	Germany	BOP BOUGHT OUTS	
		MOOG JAPAN CO	Japan		
		ROTORK	UK		
		Limitorque	USA		
		Sipos	Germany		
		Auma	Germany		
8	SWAS Analyzer	Rosemount	UK / US / Germany	BOP BOUGHT OUTS	
		Swan	Switz erland		
		HACH-Polymetron	France		
		ABB	USA		
9	Ultrasonic level transmitter	E&H	Germany	BOP BOUGHT OUTS	
		Rosemount	UK		
		Krohne	UK		
		ABB	Germany		
		Siemens	Germany		
		SIC	China		
		PRINCO	USA		
10	Level switch (radio frequency)	SOR	USA	BOP BOUGHT OUTS	
		UE	USA		
		Siemens	China		
		E&H	China		
		ABB	Germany		
		Ashcroft	USA		
		Magnetrol	USA		
11	Radar type level transmitter	E&H	Germany	BOP BOUGHT OUTS	
		Rosemount	UK		
		Krohne	UK		
		Magnetrol	USA		
		Siemens	China		
		PRINCO	USA		
12	Mass Flow Meter	ABB	Germany	BOP BOUGHT OUTS	
		Emerson	China		
		E+H	Switz erland		
		Krohne	Germany		
	Magnetic level indicator	Magnetrol	USA	BOP BOUGHT OUTS	
		E+H	Germany		
		PRINCO	USA		
		ABB	Germany		
		Rosemount	USA		

14	CEMS (Continuous Emission Monitoring System)	Qingdao Yijiehongli Technology Co Ltd	China	BOP BOUGHT OUTS	
		Chongqing Analyzer Co Ltd	China		
15	BOP Bought Outsler Tube Leak Detection Device	Nanjing Dakai Electric Power Automation Equipment Co., Ltd.	China	BOP BOUGHT OUTS	
		Nanjing Green Energy Electric Equipment Co., Ltd.	China		
		Zhongyu Automation Co., Ltd.	China		
16	Unburnt Carbon/Ash Analyzer	Nanjing Dakai Electric Power Automation Equipment Co., Ltd.	China	BOP BOUGHT OUTS	
		Nanjing Green Energy Electric Equipment Co., Ltd.	China		
		Zhongyu Automation Co., Ltd.	China		
17	CONDUCTIVITY TYPE LEVEL SWITCH	Sanxing	China	BOP BOUGHT OUTS	
		Capstar	China		
18	Flow element such as Nozzle Orifice / pitot tube / venturi	Jiangyin Jiyang Instrument Co. Ltd.	China	BOP BOUGHT OUTS	
		Jiangyin Tanan Flow Instrument Factory	China		
		Chongqi g Chuanyi Automation Co., Ltd.	China		
		Jiangyin Hongda Instrument Co.,Ltd.	China		
19	Instrument valve	SAFELOK	UK	BOP BOUGHT OUTS	
		SWAGELOK	USA		
		PARKER	USA		
20	INSTRUMENT JUNCTION BOX FITTINGS	Hensel	China	BOP BOUGHT OUTS	
		SAFELOK	UK		
		SWAGELOK	USA		
		PARKER	USA		
21	Vibration Monitoring system for Turbine	Vibro System	Canada	BHEL Mfg.	
		MC Monitoring	SWITZERLAND		
		Shinkawa	Japan		
		Bentley Niveda	USA		
		MEGITT (Vibrometer)	Switzerland		
		Rockwell Automation	USA		
		SKF	USA		
		GE	Pune		
		Forbes Marshall	Pune		
		Megitt (Vibrometer)	Bangalore		
		Rockwell Automation	Sahibabad		
		SKF	Pune		
22	Solenoid Valves	Asco	Chennai/USA	BOP BOUGHT OUTS	
		Festo	Bangalore		
		SMC	Noida		
		Parker	Brand Name		
		Rotex	Vadodara		
		Avcon	Mumabi		
		Herion	Germany		
		IMI NORGEN	GERMANY		
23	Electronic transmitters (pressure, DP & flow)	EMERSON (Rosemount)	USA/ Pawane	BOP BOUGHT OUTS	
		YOKOGAWA	JAPAN		
		Yokogawa India Pvt. Ltd.	Bangalore		
		ABB	Bangalore		
		ABB	GERMANY / Italy		
		Siemens	France / India		
		Honeywell	Pune		
		ENDRESS & HOUSER	Aurangabad/ Germany		
24	Ultrasonic type level Transmitter	E & H	Aurangabad/ Germany	BOP BOUGHT OUTS	
		EMERSON	Pawane		
		SIEMENS MILTRONICS	CANADA		
		Wega	Germany		
		Khrone	France / USA / Pune		
		Yokogawa	Bangalore		
		Honeywell	India		
		Magnetrol	Belgium		
		ABB	Germany		
25	Guided waveRadar type level transmitter	Magnetrol	Belgium	BOP BOUGHT OUTS	
		Endress & Houser	Germany/ Aurangabad		
		Emerson	Sweden/ PAWANE		
		Khrone	France		
		HONEYWELL	India		
		Siemens	India		

26	Temperature Transmitter	EMERSON	U.S.A/Pawane / Singapore	BOP BOUGHT OUTS	
		Yokogawa	Japan		
		Yokogawa India Pvt. Ltd.	Bangalore		
		Moore	USA		
		M System	JAPAN		
		ABB	GERMANY/ Bangalore		
		ENDRESS & HOUSER	Aurangabad		
		Siemens	Thane		
		Yamatake	JAPAN		
		Yamari	JAPAN		
		Foxboro	USA		
		FUJI ELECTRIC	Japan / China		
27	Level switch capacitance type	ENDRESS & HOUSER	Aurangabad	BOP BOUGHT OUTS	
		MAGNETROL	BELGIUM		
		LEVCON	KOLKATA		
		Tokio Keiso	Japan		
		V AUTOMAT	New Delhi		
		Siemens	Germany		
		ABB	Korea		
		Rosemount	Korea		
28	Level switch- cond type	EMERSON	UK	BOP BOUGHT OUTS	
		Yarway	USA		
		LEVELSTATE	UK		
		E&H	INDIA		
29	Level switch - Float/Displacer Type	ENDRESS & HOUSER	AURANGABAD	BOP BOUGHT OUTS	
		MAGNETROL	BELGIUM		
		LEVCON	KOLKATA		
		SBEM	PUNE		
		NAKATIYA	JAPAN		
		Sigma Industries	Mubmai		
30	Level switch - Float/Displacer Type	V AUTOMAT	NEW DELHI	BOP BOUGHT OUTS	
		LEVELSTATE	UK		
		EMERSON	Pawane		
		Tokoio Keiso	JaPAN		
31	DP Switch	SOR	USA	BOP BOUGHT OUTS	
		DRESSOR (ASHCROFT)	USA/Germany		
		ITT BARTON	USA		
		HERION	GERMANY		
		BARKSDALE	GERMANY		
		Switzer Process Instrument	Chennai		
		Trafag	Gurgaon		
		Switzer Process Instrument	Ghaziabad		
		Delta control	UK		
		Gauges Bourdon (GIC)	Panvel		
		ASHCROFT	Gandhinagar		
		Gorgeion	France		
		United Electric	USA		
32	Thermocouples, RTD & Thermowell	HERAUS SENSOR	GERMANY	BOP BOUGHT OUTS	
		WISE Control	Korea		
		Tempsens	Udaipur		
		Pyroelectric	Goa		
		Detriv Instrumentation & Electronics Ltd	Mumbai		
		Minco	USA		
		OKAZAKI	JAPAN		
		Yamari	JAPAN		
		Yamari	Singapore		
		ABB(SENSYCON)	Germany		
		EMERSON (Rosemount)	Germany		
		Thermal Instruments(GIC)	Savantwadi		
		Techno Instruments	Ahamadabad		
		Ephymess	Germany		
		Thermosensor	Germany		
33	Temperature Switches	SOR	USA	BOP BOUGHT OUTS	
		DRESSOR (ASCHROFT)	USA/Germany		
		ITT BARTON	USA		
		DELTA CONTROLS	UK		
		Switzer Process Instrument	Chennai		
		Switzer Process Instrument	Ghaziabad		
		Wika	Pune		
		Gorgeion	France		
		United Electric	USA		
		ASHCROFT	Gandhinagar		
		Masibus	Gandhi Nagar	BOP BOUGHT OUTS	
		ABB	Germany		
		Foxboro	UK		
		Yokogawa	Japan		
		Gossen / Metrowatt / Camille Bauer	Germany		
		Siemens	Germany		

3 4	Digital Indicators	Chino	Japan		
		Weigell Messgerate	Germany		
		Pyrotech	Udaipur		
		Yokogawa	Bangalore		
		Lektrotek	Pune		
		Teletherm	Chennai		
3 5	BREAKDOWN ORIFICE/RESTRICTED ORIFICE/ Orifice plate assembly	Instrumentation Limited	Palghat	BOP BOUGHT OUTS	
		Microprecision	Faridabad		
		Starmech	Pune		
		Flow Star	Faridabad		
		Engg. Specialities	Kolkata		
		Pyroelectric	Mumbai		
3 6	Local Instrument Enclosure/ Rack	Pyrotech	Udaipur	BOP BOUGHT OUTS	
		Instrumentation Limited	Kota		
		Sajas electrical	Trichurapalli		
		Forbes Marshall	Pune		
		Prammen	Puddukottai		
		Chemin	Pondicherry		
3 7	Level Gauges	V-Automat	NewDelhi	BOP BOUGHT OUTS	
		Kubler	Germany		
		WIKA	PUNE		
		Magnetrol	Belgium		
		Khrone	Germany		
		E & H	Aurangabad		
3 8	AIR FILTER REGULATOR	PLACKA INSTS & CONTROLS PVT. LTD		BOP BOUGHT OUTS	
		SHAVO NORGEN (INDIA) PVT LTD			
		OMAL			
		MASONEILAN			
		AirTAC International Group	Taiwan/China		
		Liangjing Group	China		
3 9	ANNUNCIATION SYSTEM	MINILEC (INDIA) PVT. LTD.	PUNE	BOP BOUGHT OUTS	
		PROCON			
		MASIBUS			
		APLAB	MUMBAI		
4 0	ANTI SURGE CONTROLLER	MTL		BOP BOUGHT OUTS	
		PHOENIX			
		P&F			
4 1	BELTWEIGHER	POWER BUILD		BOP BOUGHT OUTS	
		AVERY			
		LIBRA			
		SCHENK			
		IPA-BANGLORE			
		RAMSEY			
		Shanghai Yamato Scale Co., Ltd.	China		
		Xuzhou Sanyuan Weighing Technology Co., Ltd.	China		
		Saimo Electric	China		
4 2	BULK POWER SUPPLIES	PHOENIX		BOP BOUGHT OUTS	
		LAMDA			
		SIEMENS			
		COSEL			
		PEPPERL + FUCHS			
		WEIDMULLER			
		Netop Telecom	China		
		Zhejiang Donghua Information Control Technology Co., Ltd.	China		
4 3	BUNKER LEVEL MONITORING (3D)	EMERSON	INDIA	BOP BOUGHT OUTS	
		EIP TECH	INDIA		
		APM			
		EMERSON	China/Other Country		
4 4	BYPASS ROTAMETER	EUREKA		BOP BOUGHT OUTS	
		TRAC			
		FORBES MARSHALL			
		Shanghai Automation Instrumentation	China		
		EMERSON			
4 5	CCTV SYSTEM	TOSHNIWAL INDUSTRIES PVT. LTD.	INDIA	NOT IN SCOPE	
		SCHNEIDER			
		HONEYWELL			
		TYCO			
		PELCO			
		XYCOM			
4 6	CHLORINE ANALYSER	HACH ULTRA		BOP BOUGHT OUTS	
		EMERSON PROCESS MANAGEMENT			
		ABB			
		POLYMETRON			
		PROMECON	GERMANY	BOP BOUGHT OUTS	
		SWR ENGG	GERMANY		

47	COAL MASS FLOW MONITOR	DADE TECH	CHINA		
		ABB	INDIA		
		EUTECH SCIENTIFIC ENGG GMBH	GERMANY		
		TRANSWEING	INDIA		
		GREEN BANK ENERGY SYSTEM	UK		
		BERTHOLD TECHNOLOGIES	GERMANY		
48	COMMERCIAL GRADE WORK STATION PC / LAPTOP	DELL		#refer note	
		HP			
		LENOVO			
49	CONDUTIVITY ANALYSER	ABB		BOP BOUGHT OUTS	
		HACH ULTRA			
		POLYMETRON			
		YOKOGAWA			
		EMERSON PROCESS MANAGEMENT			
50	CONTACTORS	TELEMECHANIQUE		#refer note	
		SIEMENS			
		ABB			
		L & T			
		JYOTI			
		CHNT (Zhengjiang Chint)	China		
51	CONTROL PANEL	PROCON INST LTD		#refer note	
		POSITRONICS	VADODARA		
		RITTAL	BANGALORE		
		PYROTECH	UDAIPUR		
		Shanghai Institute of Process Automation Instrumentation	China		
		Beijing Far East Instrument Co., Ltd.	China		
		Xi'an Xingyi Control System Co.,Ltd.	China		
52	COPPER TUBE	ALCOBEX, JODH PUR		NOT IN SCOPE	
		ASSOCIATED CABLES LTD			
		AUTO CLAVE ENGINEERS FLUID COMPONENTS USA			
		EXCELL HYDRO			
		PNEUMATIC PVT LTD MUMBAI			
		MULTI METALS KOTA			
		PLACKA INSTRUMENTS & CONTROLS			
		SWAGELOK			
		Jiangxi Copper Corporation	CHINA		
53	CONTINUOUS EMISSION MONITORING SYSTEM - CEMS (SOX/NOX/CO/C O ₂ /O ₂ /MERCURY/NH ₃ AND DUST/SPM/FLOW/PRESSURE/TEMPERATURE/MOISTURE)	FORBES MARSHALL		BOP BOUGHT OUTS	
		YOKOGAWA			
		CHEMTROL			
		ABB			
		DURAG			
		ADAGE AUTOMATION			
		EMERSON			
		LAND COMBUSTION			
		TELEDYNE			
		QINGDAO YIJIEHONGLI TECHNOLOGY CO. LTD	CHINA		
		CHONGQING ANALYZER CO. LTD	CHINA		
		CODEL	UK		
54	DDCMIS (DCS SYSTEM)	EMERSON		BHEL Mfd.	
		YOKOGAWA			
		SCHNEIDER (FORMERLY KNOWN AS INVENSYS)			
		SIEMENS			
		MHI -L&T			
		HONEYWELL			
		GE			
		MAXDNA / Valmet DNA			
55	CO ₂ ANALYSER	ABB		BOP BOUGHT OUTS	
		HACH ULTRA			
		EMERSON			
		POLYMETRON			
		YOKOGAWA			
		HONEYWELL			
56	DOT MATRIX PRINTERS	EPSON		BOP BOUGHT OUTS	
		TVS			
	ETHERNET SWITCHES / ETHERNET TO FIBER OPTIC CONVERTERS	CISCO		BOP BOUGHT OUTS	
		ARISTA			
		HIRSCHMANN			
		RUGGEDCOM			
		MOXA			

58	FITTINGS	PLACKA INSTRUMENTS & CONTROLS		BOP BOUGHT OUTS	
		SWAGELOK			
		ASTECH			
		PRECISION	MUMBAI		
		EXCEL HYDRO	MUMBAI		
		HEX			
		OLIVER			
		BALDOTA			
		METPRESS ENGG	KOLKATA		
		H P VALVES & FITTINGS			
		PARKER	USA		
59	FLAME SCANNER	ABB		BOP BOUGHT OUTS	
		DURAG			
		FORNEY			
		LUCENT			
		SAFE FIRE			
60	FLOW ELEMENTS	DANIEL FLOW PRODUCTS INC. USA		BOP BOUGHT OUTS	
		ILP	PALAKKAD		
		STAR MAKE CONTROL (I) PVT LTD			
		SWITZER			
		EMERSON			
		MID-WEST	USA		
		ENGGSPECIALITIES	KOLKATA		
		PRECISION ENGINEERING			
		BRISTAL BABCOCK	UK		
		MICRO PRECISION			
		Jiangyin Throtlling Device	CHINA		
		Chongqing Weiba Instrument Co.,	CHINA		
61	FLOW METER	ABB		BOP BOUGHT OUTS	
		E&H			
		KROHNE			
		YOKOGAWA			
		Shanghai Automation Instrumentation	CHINA		
		EMERSON			
62	FURNACE GAS TEMPERATURE	SCHENTIFIC ENGG	USA	BOP BOUGHT OUTS	
		BONNENBERG+DRESCHER	GERMANY		
		DIAMOND POWER SPECIALITY LTD	INDIA/UK		
		CLYDE BERGEMAN	INDIA/USA/GERMAN		
		CONE CANADA INC	USA		
		DIAMOND POWER	CHINA		
63	GPS CLOCK	SERTEL		BOP BOUGHT OUTS	
		AMDL			
		HOPF			
		MEINBERG			
		MASSIBUS			
		Xi'an Synchronization Electronics	CHINA		
		Yantai Chijiu Clock and Watches Group Co., Ltd.	CHINA		
		ELECSPN (CHENGDU SPACEON ELECTRONICS CO., LTD.)	CHINA		
64	HYDRAZINE	HACH ULTRA		BOP BOUGHT OUTS	
		ABB			
	ANALYSER	POLYMETRON			
		YOKOGAWA			
65	IMPULSE PIPINGS	HEAVY METAL & TUBES INDORE		BOP BOUGHT OUTS	
		MAHARAstra SEAMLESS			
		OLIVER			
		SWAGLOK			
		PARKER			
		HEX			
		INDIAN SEAMLESS METAL TUBES LTD			
		SUMITOMO	JAPAN		
		TPS TECHNITUBE	GERMANY		
		ISMT	AHMEDNAGAR		
		BHEL	TRICHY		
		RATNAMONI	AHMEDABAD		
		ASTECH			
		Chongqing Chuanyu Instrument	CHINA		
		Jiangsu Dalicheng	CHINA		
	INDICATING LAMPS (CLUSTER LEDs)	COMEX		#refer note	
		JAINSON			
		PARAMOUNT ELECTRONICS PVT. LTD.			
		TECHNIQUE			

6 7	INTELLIGENT COMBUSTION OPTIMIZATION SYSTEM	ABB		BOP BOUGHT OUTS	
		TECHFAB			
		EMERSON			
		STEAG			
		SIEMENS			
		EUTECH GMBH			
6 8	INSTRUMENT JUNCTION BOXES	BALIGA LIGHTING EQUIPMENTS LTD.		BOP BOUGHT OUTS	
		CEAG FLAME PROOF CONTROL GEARS			
		FLEXPRO ELECTRICALS PVT LTD			
		RITTAL			
		PYROTECH	UDAIPUR		
		SAJAS	TRICHY		
		K.S. INDUSTRIES	BANGALORE		
		ELECTRO-MECHANICAL	KOLKATA		
		Sichuan Jiuzhou Wire and Cable Co.,	CHINA		
		Haian Sanxing Auto Instrument	CHINA		
		Chongqing Chuanyu Instrument	CHINA		
6 9	INTERPOSING RELAYS / RELAYS	JYOTI		#refer note	
		H & B			
		OMRON			
		TYCO			
		TELEMECHANIQUE			
		SIEMENS			
		ABB			
		UL			
		CELESTE			
		CHNT (Zhengjiang Chint)	CHINA		
		Kunming Zhanyuan Tech.	CHINA		
7 0	INSTRUMENT VALVE & MANIFOLDS	ASTEC INSTRUMENTS, MUMBAI		BOP BOUGHT OUTS	
		CHEMTROLS ENGG. PVT LTD			
		PRECISION ENGINEERING TECHNOMATIC			
		SWAGELOK			
		EXCEL HYDRO	MUMBAI		
		BALDOTA	MUMBAI		
		METPRESS	KOLKATA		
		ILP			
		AUR INC			
		BHEL	TRICHY		
		PARKER			
7 1	I/P CONVERTOR	EMERSON PROCESS MANAGEMENT		BOP BOUGHT OUTS	
		MOORE CONTROLS LTD (FM)			
		MTL			
		YOKOGAWA			
		FORBES MARSHALL			
		WATSON SMITH			
		SMC PNEUMATIC			
		FAIRCHILD	USA		
		STI			
		ABB			
7 2	LIMIT SWITCH	BCH	INDIA	#refer note	
		CHNT (Zhengjiang Chint)	CHINA		
		SCHNEIDER			
		OMRON			
		GOSWITCH/EMERSON			
7 3	LOCAL INSTRUMENT ENCLOSURE	CHEMIN CONTROLS AND INSTRUMENTATION LTD		BOP BOUGHT OUTS	
		PRAMMEN INDUSTRIES			
		PYROTECH ELECTRONICS P.LTD (UNIT-II)	UDAIPUR		
		SAJAS ELECTRICALS			
7 4	LOCAL INSTRUMENT RACK	CHEMIN CONTROLS AND INSTRUMENTATION LTD		BOP BOUGHT OUTS	
		PRAMMEN INDUSTRIES			
		PYROTECH ELECTRONICS P.LTD (UNIT-II)	UDAIPUR		
		SAJAS ELECTRICALS			
		SYSPRO AUTOMATION			
		Xi'an Xingyi Control System Co.,Ltd.	CHINA		
	MAGNETIC FLOW METERS	ABB		BOP BOUGHT OUTS	
		E&H			
		FORBES MARSHALL			
		YOKOGAWA			
		EMERSON			

7 6	MASS FLOW METER (CORIOLIS PRINCIPLE)	ABB		BOP BOUGHT OUTS	
		E&H			
		EMERSON PROCESS MANAGEMENT			
		FORBES MARSHALL			
		HONEYWELL LTD			
		YOKOGAWA			
		KROHNE	GERMANY		
7 7	MICROPROCESS OR BASED RECORDERS	ABB		BOP BOUGHT OUTS	
		CHINO-LAXSONS (INDIA) PVT LTD			
		HONEYWELL			
		GOSSEN			
		MASIBUS			
		YOKOGAWA			
7 8	ORP ANALYSER	HACH ULTRA		BOP BOUGHT OUTS	
		YOKOGAWA			
		HONEYWELL			
		EMERSON			
		ABB			
7 9	PADO	STEAG		BHEL Mfd.	
		HONEYWELL			
		INVENSYS			
		ABB			
		EMERSON			
8 0	PH ANALYSER	ABB		BOP BOUGHT OUTS	
		HACH ULTRA			
		POLYMETRON			
		YOKOGAWA			
		EMERSON PROCESS MANAGEMENT			
8 1	PROGRAMMABLE LOGIC CONTROLLER (PLC)	ABB	Not A	NOT IN SCOPE	
		GE			
		SIEMENS			
		SCHNEIDER			
		HONEYWELL			
		HOLLYSYS			
		ROCKWELL AUTOMATION			
8 2	PLC PANELS	GE	BANGALORE	NOT IN SCOPE	
		ABB	BANGALORE		
		SIEMENS	MUMBAI		
		L&T	MUMBAI		
		SCHNEIDER	DELHI		
		ROCKWELL AUTOMATION	SAHIBABAD		
		AMTECH ELECTRONICS INDIA LTD	GANDHINAGAR		
		The same brand as above	CHINA		
		Xi'an Xingyi Control System Co.,Ltd.	CHINA		
8 3	POSITION TRANSMITTER	HONEYWELL	UK/USA	BOP BOUGHT OUTS	
		ABB	GERMANY		
		DEA(Dongfang Electric Auto Control)	CHINA		
8 4	PRESSURE GAUGE / DP GAUGE	ASHCROFT		BOP BOUGHT OUTS	
		FORBES MARSHALL			
		GENERAL INST CONSORTIUM			
		WAAREE INSTRUMENTS LIMITED			
		WIKA INSTRUMENTS INDIA PVT. LTD.			
		FIEBIG MANOMETER (I) PVT. LTD			
		SWITZER INSTRUMENTS			
		A.N. INSTRUMENTS PVT LTD			
		H GURU INSTRUMENTS (SI) P. LTD			
		GOA THERMOSTATIC INSTRUMENTS PVT LTD.			
		BUDENBERG			
		PYRO ELECTRIC			
		GLUCK			
		PYRO ELECTRIC			
		Anhui Tiankang	CHINA		
		Chongqing Chuanyi Automation	CHINA		
		Shanghai Automation Instrumentation Co.Ltd	CHINA		
		Jiangshu Huibang Control System Co.,Ltd.	CHINA		
		BALIGA		BOP BOUGHT OUTS	
		OMRON			

8 5	PROXIMITY TYPE LIMIT SWITCH	HONEYWELL			
		P & F			
		CHNT (Zhengjiang Chint)	CHINA		
		SCHNEIDER			
		SUKONG LIUTI	CHINA		
8 6	PULLCORD / BELT SWAY	JAYSHREE		NOT IN SCOPE	
		A.G. MECH			
		PROCONTROL			
		SIEMENS			
		KAKKU			
		P.G. ELECTRONICS			
8 7	INLINE ROTAMETER / VARIABLE AREA FLOWMETER	ABB		BOP BOUGHT OUTS	
		EUREKA INDUSTRIES EQUIPMENTS PVT. LTD.			
		INSTRUMENTATION ENGS PVT LTD			
		KROHNE			
		PLACKA INSTRUMENTS & CONTROLS			
		TRAC EQUIPMENTS PVT LTD	PUNE		
		Shanghai Automation Instrumentation	CHINA		
		EMERSON			
		Chongqing Weiba Instrument	CHINA		
8 8	SAFETY BARRIER	MTL		NOT IN SCOPE	
		P&F			
		PHOENIX			
8 9	SILICA ANALYSER	HACH ULTRA		BOP BOUGHT OUTS	
		EMERSON PROCESS MANAGEMENT			
		ABB			
		POLYMETRON			
9 0	SINGLE LOOP PROGRAM CONTROLLER / INDICATING CONTROLLERS	ABB		BOP BOUGHT OUTS	
		HONEYWELL			
		YOKOGAWA			
9 1	SMART POSITIONERS	EMERSON		BOP BOUGHT OUTS	
		YOKOGAWA			
		ABB			
		MOORE			
		MTL			
		FORBES MARSHALL			
		SIEMENS			

92	SMART TRANSMITTER (P, L, F, DP)	ABB		BOP BOUGHT OUTS
		E&H		
		FUJI	JAPAN	
		HONEYWELL		
		EMERSON PROCESS MANAGEMENT		
		YOKOGAWA		
		Yokogawa Sichuan Instrument Co.,	CHINA	
		Chongqing Chuanyi Automation	CHINA	
		Shanghai Automation Instrumentation Co.Ltd	CHINA	
93	SOLENOID VALVES	ASCO		BOP BOUGHT OUTS
		VICKERS		
		ROTEX		
		SCHRADER		
		REXROTH		
		UK FLYGER VALVE CO.,LTD.	UK	
		Shanghai Automation Instrumentation Co.Ltd	CHINA	
		CHNT (Zhengjiang Chint)	CHINA	
94	SODIUM ANALYSER	HACH ULTRA		BOP BOUGHT OUTS
		FORBES MARSHALL		
		ABB		
		YOKOGAWA		
95	SURGE ABSORBER	MTL		#refer note
		WEIDMULLER		
		P&F		
96	SWAS SYSTEM	FORBES MARSHALL		BOP BOUGHT OUTS
		EMERSON		
		YOKOGAWA		
		ABB	USA	
		STEAM EQUIPMENTS PVT. LTD.		
		ROSEMOUNT	UK/US/GERMANY	
		SWAN	SWITZERLAND	
		HACH-POLYMETRON	FRANCE	
		POLYMETRON		
		PHONEIX CONTACT		
		WAGO		
		CONNECTWELL		
		ELMEX		
97	TEMPERATURE GAUGES	ASHCROFT		BOP BOUGHT OUTS
		FORBES MARSHALL		
		GENERAL INST CONSORTIUM		
		WAAREE INSTRUMENTS LIMITED		
		WIKA INSTRUMENTS INDIA PVT. LTD.		
		FIEBIG MANOMETER (I) PVT. LTD		
		SWITZER INSTRUMENTS		
		PYRO ELECTRIC		
		A.N. INSTRUMENTS PVT LTD		
		Anhui Tiankang	CHINA	
		Chongqing Chuanyi Automation	CHINA	
		Shanghai Automation Instrumentation Co.Ltd	CHINA	
		Jiangshu Huibang Control System Co.,Ltd.	CHINA	
98	TEMPERATURE SWITCHES	ASHCROFT		BOP BOUGHT OUTS
		SWITZER INSTRUMENTS		
		WAAREE INSTRUMENTS LIMITED		
		SOR		
		PYROELECTRIC		
		TEMPSON		
99	TURBIDITY ANALYSER	HACH ULTRA		BOP BOUGHT OUTS
		YOKOGAWA		
		EMERSON		
		ABB		
		FORBES MARSHALL		
		POLYMETRON		
100	ULTRASONIC FLOWMETER	FORBES MARSHALL		BOP BOUGHT OUTS
		YOKOGAWA		
		E&H		
		EMERSON PROCESS MANAGEMENT		
		PROMECON	GERMANY	BOP BOUGHT OUTS
		DADE TECH	CHINA	
		ABB	INDIA	

101	UNBURNT CARBON IN ASH ANALYZER	SCANTECH	AUSTRALIA	
		Nanjing Dakai Electric Power Automatization Equipment Co., Ltd	CHINA	
102	UNDER BELT SWITCH	JAYSHREE		BOP BOUGHT OUTS
		A.G. MECH		
		PROCONTROL		
		SIEMENS		
103	VIBRATION TRANSMITTER	SHINKAWA		BOP BOUGHT OUTS / #refer note
		BENTLEY		
		NADA		
		MATRIX		
		EMERSON		
104	VORTEX FLOW METER	ABB		BOP BOUGHT OUTS
		E&H		
		FORBES MARSHALL		
		YOKOGAWA		
		EMERSON		
105	ZERO SPEED SWITCHES	PARAMATRICS		BOP BOUGHT OUTS
		JAYSHREE		
		PYROTECH ELECTRONICS		
		PROCONTROL		
106	LABORATORY INSTRUMENTS	YOKOGAWA		BOP BOUGHT OUTS
		FLUKE		
		SCANDURA		
		NAGMAN		
		APLAB		
		TINSLEY		
		GENSENSING		
		WAREE (BEAMEX)		
		CHONGQING CHUANYI ANALYZER		
		CO. LTD	CHINA	
		Beijing Far East Instrument Co., Ltd.	CHINA	
107	LARGE VIDEO SCREEN	BARCO		BOP BOUGHT OUTS
		DELTA		
		SYNELEC		
		PLANER		
		Clarity	USA	
		SHARP	JAPAN/CHINA	
		MITSUBISHI	JAPAN/CHINA	

Note: The above categorization is in line with our standard practice followed for all projects.

For these items, refer "Final Resolution on categorization of materials wrt. Annexure-17 Dated 15-9-23"

General Note: BHEL's unit wise vendor list signed by MEL QA may also be referred for the above list of items, as applicable

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by Deepak Vij
Date:
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SN	ITEM DESCRIPTION	VENDORS	Remarks
1	PRESSURE/D. P. / FLOW TRANSMITTERS	FUJI ELECTRIC, INDIA	Approved
2	JUNCTION BOX	EMECON CONTROLS PVT. LTD., NEW DELHI	Approved
		PYROTECH ELECTRONICS PVT LTD, UDAIPUR	Approved
		BCH ELECTRIC LIMITED, NEW DELHI	Approved
3	DC STARTER CONTROL PANEL	BCH ELECTRIC LTD., NEW DELHI	Approved
		PRIMA AUTOMATION (INDIA) PVT. LTD., GANDHI NAGAR	Approved
		COTMAC ELECTRONICS PVT. LTD., PUNE	Approved
		C&S ELECTRIC LTD., NOIDA	Approved
4	SOLENOID VALVES	BOSCH REXROTH (INDIA) PRIVATE, AHMEDABAD	Approved
		VOITH TURBO PRIVATE LIMITED, HYDERABAD	Approved
5	LIMIT SWITCHES	HONEYWELL AUTOMATION INDIA, GURGAON	Approved
		SIEMENS LIMITED, GURGAON	Approved
6	THERMOCOUPLE / RTD / THERMOWELL	EMERSON , DAMAN	Approved
		GIC (THERMAL INSTRUMENTS), MUMBAI	Approved
		GAUGE BOURDEN, PANWEL	Approved
		TOSHNIWAL INDUSTRIES PVT. LTD., AJMER	Approved
		WIKA, PUNE	Approved
7	LEVEL SWITCH (CAPACITANCE TYPE)	SIEMENS, GURGAON	Approved
		SBEM, PUNE	Approved
		NIVO CONTROLS, INDORE	Approved
		PUNE TECHTROL, PUNE	Approved
		CHEMTROLS, GOA	Approved
		SIGME INDUSTRIES, MUMBAI	Approved
8	LEVEL SWITCH (FLOAT/DISPLACER TYPE)	ENDRESS+HAUSER, GERMANY/AURANGABAD	Approved
		MAGNETROL, BELGIUM	Approved
		SBEM, PUNE	Approved
		NIVO CONTROLS, INDORE	Approved
		PUNE TECHTROL, PUNE	Approved
		LEVCON, KOLKATA	Approved
		SIEMENS, GURGAON	Approved
		CHEMTROLS, GOA	Approved
		SIGME INDUSTRIES, MUMBAI	Approved
9	PRESSURE / D. P. GAUGES	DRESSOR, USA/GERMANY	Approved
		SIEMENS, GURGAON	Details Required
		PRECISION MASS, GANDHINAGAR	Approved
		BAUMER, VAPI	Approved
10	TEMPERATURE GAUGES	H.GURU INSTRUMENTS (P) LTD., NEW DELHI	Approved
		TEMPSENS INSTRUMENTS (I) PVT., UDAIPUR	Approved
		PRECISION MASS PRODUCTS (P) LT, GANDHINAGAR	Approved
11	CONDUCTIVITY ANALYSER	FORBES MARSHALL, PUNE	Approved
		ABB, DEHRADUN	Approved

		HACH COMPANY, USA	Approved
12	LEVEL TRANSMITTER (RADAR TYPE)	VEGA INDIA LEVEL AND PRESSURE, PUNE	Approved
		V AUTOMAT, NEW DELHI	Approved
		HONEYWELL, GURGAON	Approved
13	PRESSURE/D.P. SWITCH	INDFOS, GHAZIABAD	Approved
		SIEMENS, INDIA	Details Required
		BAUMER TECHNOLOGIES, INDIA	Approved
14	LEVEL GAUGES	SBEM, PUNE	Approved
		SIEMENS, GURGAON	Details Required