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BHEL
Tenders

Government eProcurement System

Tender Details

Date : 04-Dec-2020 02:15 PM

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Basic Details

Organisation Chain	Bharat Heavy Electricals Limited EDN - Bangalore SCPV		
Tender Reference Number	RAJBOS0066		
Tender ID	2020_BHEL_412_1		
Tender Type	Limited	Form of contract	Buy
Tender Category	Goods	No. of Covers	2
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No
Payment Mode	Not Applicable	Is Multi Currency Allowed For BOQ	No
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.pdf	Vendor bid form
		.pdf	Unpriced bid
		.pdf	TechnoCommercial bid form
2	Finance	.xls	Price bid

Tender Fee Details, [Total Fee in ₹ * - 0.00]

Tender Fee in ₹	0.00		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	0.00	EMD through BG / ST or EMD Exemption Allowed	No
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Nil	EMD Payable At	Nil

Work / Item(s)

Title	RAJBOS0066 for Supply and Commissioning Support of 2.7MVA AND 5.3MVA Outdoor Inverter Transformers for NTPC Simhadri 25MW and Kayamkulam 22MW Floating Solar PV Project				
Work Description	RAJBOS0066 for Supply and Commissioning Support of 2.7MVA AND 5.3MVA Outdoor Inverter Transformers for NTPC Simhadri 25MW and Kayamkulam 22MW Floating Solar PV Project				
Pre Qualification Details	NOT APPLICABLE				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	No				
Tender Value in ₹	0.00	Product Category	Electrical Work/ Equipment	Sub category	Transformers
Contract Type	Tender	Bid Validity(Days)	90	Period Of Work	56

				(Days)	
Location	NTPC SIMHADRI AND NTPC KAYAMKULAM	Pincode	531020	Pre Bid Meeting Place	NA
Pre Bid Meeting Address	NA	Pre Bid Meeting Date	NA	Bid Opening Place	bangalore
Should Allow NDA Tender	No	Allow Preferential Bidder	No		

Critical Dates

Publish Date	04-Dec-2020 02:20 PM	Bid Opening Date	09-Dec-2020 01:30 PM
Document Download / Sale Start Date	04-Dec-2020 02:20 PM	Document Download / Sale End Date	09-Dec-2020 01:00 PM
Clarification Start Date	04-Dec-2020 02:20 PM	Clarification End Date	09-Dec-2020 01:00 PM
Bid Submission Start Date	04-Dec-2020 02:20 PM	Bid Submission End Date	09-Dec-2020 01:00 PM

Tender Documents

NIT Document	S.No	Document Name	Description	Document Size (in KB)	
	1	Tendernotice 1.pdf	Tender Document	5341.22	
Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	Tender Documents	RAJBOS0066.pdf	RFQ	5327.63
	2	BOQ	BOQ_372.xls	price bid form	303.00
	3	Additional Documents	RAJBOS0066VendorBidForm.pdf	vendor bid form	34.22
	4	Other Document	RAJBOS0066TechnoCommIbid.pdf	techno commercial bid	48.63
	5	Other Document	RAJBOS0066UnpricedBid.pdf	Unpriced bid	9.58
	6	Other Document	RAJBOS0066A.pdf	circulars and forms	15605.54

Limited Bidders List

S.No.	Bidder Name	Bidder Login Id
1.	ELECTROTHERM INDIA LIMITED	anand.pandey@electrotherm.com
2.	Hammond Power Solutions Pvt. Ltd.	neetu.p@hammondpowersolutions.com
3.	M/s. Esennar Transformers Pvt Ltd	tenders@esennar.com
4.	SHILCHAR TECHNOLOGIES LIMITED	info@shilchar.com
5.	Toshiba Transmission & Distribution Systems (India) Private Limited	marketing@toshiba-ttdi.com

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	srinivasa.a@bhel.in	SRINIVAS ANAKAPALLI	SRINIVAS ANAKAPALLI
2.	csreddy@bhel.in	CHANDRA SEKHAR REDDY V	V CHANDRA SEKHAR REDDY
3.	pragadeeshtg@bhel.in	PRAGADEESH T G	PRAGADEESH T G

Tender Inviting Authority

Name	Rajesh S
Address	PB No. 2606, Mysore Road, Bangalore

Tender Creator Details

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Created By	RAJESH S
Designation	SR ENGINEER
Created Date	04-Dec-2020 01:20 PM

REQUEST FOR QUOTATION

	BHARAT HEAVY ELECTRICALS LIMITED Electronics Division PB No. 2606, Mysore Road Bangalore - 560026 INDIA	RFQ NUMBER: RAJBOS0066 RFQ DATE : 04.12.2020	Due Date/Day: 09.12.2020 WED Time : 13:00 HRS Tender Box : Reception Area Opening Venue: NEW ENGG. BLDG
MMI:PU:RF:003			
(address for communication) :		(for all correspondence) Purchase Executive : RAJESH SHELMEDEA Phone : 26989637 Fax : 00918028520135 E-mail: s.rajesh@bhel.in	

Sl No.	Description	Qty	Unit	Delivery qty	Delivery Date
1	PS0679083847 supply of 2.7MVA Oil type Transformer * HSN/SAC : 8504 Test Certificate Inverter Duty Transformer -Two winding As per Purchase specification PS 439-1330	1	ST	1	29.01.2021
2	PS0679083855 Supply of spares for 2.7 MVA ONAN TF * HSN/SAC : 8504 Test Certificate Inverter Duty Transformer -Two winding As per Purchase specification PS 439-1330	1	ST	1	29.01.2021
3	PS0679083863 Comm. support for 2.7 MVA Oil type TF * HSN/SAC : 8504 Inverter Duty Transformer -Two winding As per Purchase specification PS 439-1330	1	AU	1	29.01.2021
4	PS0679083880 supply of 5.3MVA Oil type Transformer * HSN/SAC : 8504 Test Certificate Inverter Duty Transformer -Three winding As per Purchase specification PS 439-1331	11	ST	6 5	29.01.2021 29.01.2021
5	PS0679083898 supply of spares for 5.3MVA ONAN TF * HSN/SAC : 8504 Test Certificate Spares for Inverter Duty Transformer -Three winding As per Purchase specification PS 439-1331	2	ST	1 1	29.01.2021 29.01.2021
6	PS0679083901 Comm. support for 5.3 MVA Oil type TF * HSN/SAC : 8504 Inverter Duty Transformer -Three winding As per Purchase specification PS 439-1331	9	AU	4 5	29.01.2021 29.01.2021

Total Number of Items - 6

- 1.
- 2.

TWO PART BID - SUBMIT TECHNICAL AND PRICE BID IN SEPARATE SEALED COVERS

NOTES:

1. This RFQ is governed by:
 - a) INSTRUCTIONS TO BIDDERS/SELLERS and GENERAL CONDITIONS OF CONTRACT FOR PURCHASE available at <http://edn.bhel.com> (**RFQ-PO Terms & Conditions**)
 - b) Any other specific Terms and Conditions mentioned.
 2. Bidders / Representatives who would like to be present during opening of offers are required to furnish authorization letter for the same.
- * The HSN/SAC no mentioned against the line items in the RFQ are indicative only.

For and On behalf of BHEL.

RAJESH SHELMEDEA
Semiconductors & Pho

1 OF 1

RAJBOS0066 – Quantity Breakup

BHEL-EDN is executing 25 MW (AC) & 22 MW (AC) Floating Solar PV projects for M/s NTPC at Simhadri and Kayamkulam respectively. Tender for Outdoor inverter duty transformer is being floated through Open Tender.

Quantity Breakup:

Sl.No	Item Description	Total Quantity	Quantity Breakup	
			25MW Simhadri	22MW Kayamkulam
1	Supply of 2.7MVA outdoor oil type inverter duty 2-winding transformer	1 No	NA	1 No
2	Supply of Spares for 2.7MVA outdoor oil type inverter duty 2-winding transformer	1 Set	NA	1 Set
3	Commissioning Support for 2.7MVA outdoor oil type inverter duty 2-winding transformer	1 AU	NA	1 AU
4	Supply of 5.3MVA outdoor oil type inverter duty 3-winding transformer	11 Sets	6 Sets	5 Sets
5	Supply of Spares for 5.3MVA outdoor oil type inverter duty 3-winding transformer	2 Sets	1 Set	1 Set
6	Commissioning Support for 5.3MVA outdoor oil type inverter duty 3-winding transformer	9 AU	5 AU	4 AU

	PURCHASE SPECIFICATION FOR SUPPLY AND COMMISSIONING SUPPORT OF ONAN TYPE, 3-PHASE, 2-WINDING, 2.7 MVA, 33KV / 630V INVERTER DUTY TRANSFORMER	PS-439-1330
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**TECHNICAL SPECIFICATION
FOR
SUPPLY AND COMMISSIONING SUPPORT
OF
ONAN TYPE, 3-PHASE, 2-WINDING, 2.7 MVA, 33KV / 630V
INVERTER DUTY TRANSFORMER**

01	26-11-2020	VIPINDAS CP	PRACHI RAO V
Revision Reason: LV voltage defined as 630V.	Date	Prepared	Checked & Approved

	PURCHASE SPECIFICATION FOR SUPPLY AND COMMISSIONING SUPPORT OF ONAN TYPE, 3-PHASE, 2-WINDING, 2.7 MVA, 33KV / 630V INVERTER DUTY TRANSFORMER	PS-439-1330
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1.0 INTRODUCTION

This document details the technical specifications, supply conditions, erection and commissioning and post-commissioning requirements for ONAN type, 3-phase, 2-winding, 2.7 MVA, 33KV / 630V inverter duty transformers for solar PV grid connected power plants.

2.0 LIST OF ITEMS

2.1	ONAN type, 3-phase, 2-winding, Inverter Duty Transformer with one LV winding and one HV winding - Rating 2700 kVA 1) HV Voltage: 33kV 2) LV voltage: 630V 3) Vector group: Dyn11	Qty as per BHEL tender requirement																																				
2.2	Spares shall be offered as per list below: <table border="1"> <thead> <tr> <th>#</th><th>Spares (O&M)</th><th>Qty</th></tr> </thead> <tbody> <tr> <td>1</td><td>HV Bushings with metal parts and gaskets</td><td>1 sets (3 Nos)</td></tr> <tr> <td>2</td><td>LV Bushings with metal parts and gaskets</td><td>1 set (3 Nos)</td></tr> <tr> <td>3</td><td>LV Neutral Bushing</td><td>1 set (1 No)</td></tr> <tr> <td>4</td><td>Set of valves (Each set shall represent complete qty of different types of valves used in one transformer. Total list of valves shall be indicated by vendor during detailed Engg)</td><td>1 set</td></tr> <tr> <td>5</td><td>Pressure Relief Device with trip contacts</td><td>2 No</td></tr> <tr> <td>6</td><td>Winding temperature indicator with alarm & trip contacts along with 4-20mA transmitter</td><td>1 No</td></tr> <tr> <td>7</td><td>Oil temperature indicator with alarm & trip contacts along with 4-20mA transmitter</td><td>1 No</td></tr> <tr> <td>8</td><td>Buchholz Relay (complete unit)</td><td>1 No</td></tr> <tr> <td>9</td><td>Magnetic Oil Level Gauge (MOG)</td><td>1 No</td></tr> <tr> <td>10</td><td>Set of Gaskets (Each set shall represent complete qty of different types of gaskets used in one transformer. Total list of gaskets shall be indicated by vendor during detailed Engg)</td><td>1 set</td></tr> <tr> <td>11</td><td>Transformer Oil</td><td>10 % of total quantity of extra oil required for all the transformers</td></tr> </tbody> </table> Notes: a) Vendor shall provide a complete list of spares showing item-wise unit price, quantity and total price. b) BHEL reserves the right in selection and inclusion of the spares in the final scope of supply.		#	Spares (O&M)	Qty	1	HV Bushings with metal parts and gaskets	1 sets (3 Nos)	2	LV Bushings with metal parts and gaskets	1 set (3 Nos)	3	LV Neutral Bushing	1 set (1 No)	4	Set of valves (Each set shall represent complete qty of different types of valves used in one transformer. Total list of valves shall be indicated by vendor during detailed Engg)	1 set	5	Pressure Relief Device with trip contacts	2 No	6	Winding temperature indicator with alarm & trip contacts along with 4-20mA transmitter	1 No	7	Oil temperature indicator with alarm & trip contacts along with 4-20mA transmitter	1 No	8	Buchholz Relay (complete unit)	1 No	9	Magnetic Oil Level Gauge (MOG)	1 No	10	Set of Gaskets (Each set shall represent complete qty of different types of gaskets used in one transformer. Total list of gaskets shall be indicated by vendor during detailed Engg)	1 set	11	Transformer Oil	10 % of total quantity of extra oil required for all the transformers
#	Spares (O&M)	Qty																																				
1	HV Bushings with metal parts and gaskets	1 sets (3 Nos)																																				
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3	LV Neutral Bushing	1 set (1 No)																																				
4	Set of valves (Each set shall represent complete qty of different types of valves used in one transformer. Total list of valves shall be indicated by vendor during detailed Engg)	1 set																																				
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6	Winding temperature indicator with alarm & trip contacts along with 4-20mA transmitter	1 No																																				
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8	Buchholz Relay (complete unit)	1 No																																				
9	Magnetic Oil Level Gauge (MOG)	1 No																																				
10	Set of Gaskets (Each set shall represent complete qty of different types of gaskets used in one transformer. Total list of gaskets shall be indicated by vendor during detailed Engg)	1 set																																				
11	Transformer Oil	10 % of total quantity of extra oil required for all the transformers																																				

	PURCHASE SPECIFICATION FOR SUPPLY AND COMMISSIONING SUPPORT OF ONAN TYPE, 3-PHASE, 2-WINDING, 2.7 MVA, 33KV / 630V INVERTER DUTY TRANSFORMER	PS-439-1330
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2.3	Installation and commissioning support for the transformers at site: BHEL scope of activities at site for installation and commissioning: (1) Movement and positioning of transformers on their respective foundations. BHEL shall arrange all necessary labour, machinery and tools. (2) Erection / assembly of transformer fittings and accessories. BHEL shall arrange all necessary labour, machinery and tools. (3) Laying of LV/HV cables, erection of HV termination kits and cable terminations at the LV/HV cable boxes. BHEL shall arrange all necessary labour and tools. Supply of cables and accessories (glands, lugs, nuts, washers in BHEL scope. Vendor scope of activities at site for commissioning: (1) Supervision of erection / assembly of transformer fittings and accessories including marshalling box wiring. This shall include providing technical guidance to BHEL erection team wherever required. (2) Commissioning / service engineer(s) shall be available at site at the time of commissioning of the power plant. All necessary guidance / support in overcoming technical problems (if any) related to the transformers. A single lump-sum price on per-transformer basis shall be offered. The lump-sum price shall include all the costs that will be incurred by the vendor towards the above activities including travel, boarding, lodging and any other contingency expenses.	1 AU per transformer 1 AU (Activity Unit) = I&C Support for 1 No. transformer
2.4	Service during Warranty Warranty shall be for 60 months from the date of commission or 63 months from the date of supply, whichever earlier, Vendor shall enclose, along with technical bid, the complete scope, terms and conditions of the warranty. During the warranty period, whenever a technical problem is encountered with transformers, BHEL will report the same to the vendor. All parts of the transformers shall be covered under warranty. Replacement of all defective material during warranty period shall be in scope of the vendor. Vendor shall ensure that the problem is attended to by their service engineer within two days from the date of reporting.	

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3.0 Technical specification

#	Technical parameter	BHEL specification	
1	Transformer type	Outdoor, oil-immersion type ONAN, Inverter Duty. Inverter Transformer shall be designed for at least 5% total harmonic distortion (THD)	
2	IP class	Transformer, including the cable box and marshalling box shall be of IP55 or better .	
3	Application	Grid-connected solar photovoltaic power plant.	
4	Governing Standards	Power Transformer	IS: 2026, IS: 6600, IEC:60076,CBIP,IS 1180
		Fittings and Accessories	IS: 3639
		Insulating Oil	IEC: 60296
		Bushings	IS: 2099, IEC: 60137, IS 20650 IEC 144, IEC 137, IS 3347, IS 12676
		Bushing CTs	IS:2705 , IEC 60185
		Degree of protection	IS: 2147, IEC 76
		Tests and tolerance of guaranteed particulars	IS: 2147, IEC 76
		Buchholz relay	IS: 3637
		Electrical insulation classified by thermal stability	IS: 1271, IEC 85
		Climate proofing	IS: 3202, IEC 354
		Indian Electricity Act 2003, BEE Guideline 3 star or better & CEA regulations/notifications	
5	Rating in KVA	2700 kVA	
6	No. of phases	3	
7	Frequency	50 Hz, +/- 3%	
8	HV winding	One 3-phase winding with Delta connection. HV voltage: 33KV	
9	LV windings	One 3-phase winding with Star connection. LV voltage: as defined at Cl. 2.1.	
10	Winding material	Electrolytic grade copper/Aluminum for both HV and LV windings.	
11	Winding Insulation	Class A	
12	Neutral on LV side	Neutral terminals of LV winding shall be brought out separately through bushings. The neutral bushing shall be covered with M.S / FRP Sheet and there shall be a warning plate/ label provided for the neutral bushing: "For testing purpose only. Do not earth" .	

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13	Vector Group	Dyn11
14	Rated Thermal Short time current withstand time	25kA for 2 sec
15	% Impedance on principal tap, at 2.7MVA base at 75deg C and 50 deg C	HV - LV: 7% Tolerance shall be as per relevant IS
16	Termination HV/LV/Orientation	Air insulated cable box with disconnecting chamber, for both HV and LV sides. Cable box / Cable box / 180°.
17	Cable entry on HV side	- Bottom entry of cables. - Cable size: 1 run per phase of 1Cx240 sq-mm, 33kV grade, aluminum conductor, armoured, XLPE insulation, PVC sheath as per IS: 7098. - Cables, lugs, glands, etc shall be in BHEL SCOPE The minimum length provided for terminating 33KV XLPE cable shall be 1000MM from cable gland plate to cable lugs in the cable boxes. - Cable OD will be intimated to the vendor at the time of manufacturing.
18	Cable entry on LV side	- Three wire system. No neutral wire - Bottom entry of cables - Cable size: 6 runs per phase of 1CX400 sqmm, aluminum conductor, armoured, XLPE insulation, PVC sheath as per IS: 7098. - Cables, lugs, glands etc shall be in BHEL SCOPE - Vendor shall provide holes in the busbars and on the bottom-side gland-plate of LV side cable box for placement of glands. The minimum length provided for terminating LV cable shall be 650MM from cable gland plate to cable lugs in the cable boxes. - Cable OD shall be informed to vendor during drawings approval by BHEL. Cables shall enter the cable box straight upwards and get connected to the bus bars. After entry into cable box, cables shall not undergo any bends or turns. Cables shall enter the cable box straight upwards and get connected to the bus bars. After entry into cable box, cables shall not undergo any bends or turns.
19	Tapping on HV winding	Off circuit tap changer (OCTC) switch with tap positions range from -5% to +5% in steps of 2.5%.
20	Loading Capability	Continuous operation at rated MVA on any tap with voltage variation of +/-10% corresponding to the voltage of the tap as well as in accordance with IEC60076-12/IS: 6600.

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21	Ambient temperature	Max 50 deg C
22	Temperature rise	For top oil: Max.50 deg C by thermometer method. For winding: Max. 55 deg C by resistance method. Both rises shall be over an ambient temperature of 50 deg C irrespective of tap position.
23	Flux density	Not to exceed 1.9 Wb/sq.m at any tap position with +/-10% voltage variation from voltage corresponding to the tap. Transformer shall also withstand following over-fluxing conditions due to combined voltage and frequency fluctuations: a) 110% for continuous rating b) 125% for at least one minute c) 140% for at least five seconds Vendor shall furnish over-fluxing characteristics upto 150% during detailed engg. The transformer shall also be capable of withstanding without damage during the time, for a duration of at least two seconds the stresses caused by short circuit limited only by the transformer impedance with 110% rated voltage maintained at source end.
24	Air Clearances	As per CBIP
25	Harmonics	Shall be designed to suppress harmonics especially 3rd & 5th. Inverter Transformer shall be designed for at least 5% total harmonic distortion (THD)
26	Noise level	As per NEMA TR-1 standard
27	Highest system voltage	LV side: 3.6kV HV side: 36 kV
28	Insulation Class (Winding and bushing)	As per relevant IS / IEC standard LV side winding and bushing insulation class shall be of at least 3.6kV
29	Insulation levels Rated Lightning Impulse withstand voltage / Short duration power frequency withstand voltage	As per IEC 60137
30	Painting	The inside of tank and accessories (except M. Box) shall be painted with one coat of Oil & heat resistant fully glossy white colour with minimum DFT of 30 microns. The external paint colour of transformer & accessories including M Box shall be blue corresponding to RAL 5012 . The external surface of transformer & accessories shall have one coat of chemical resistant epoxy zinc phosphate primer Chemical resistant epoxy zinc phosphate primer, MIO (Micaceous iron oxide) as intermediate paint followed by polyurethane finish paint with minimum DFT of 100 microns.

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		The internal surface of Marshalling Box shall have two coats of chemical resistant epoxy zinc phosphate primer and two coats of chemical & thermal resistant epoxy enamel white paint with minimum DFT of 100 microns. *Paint shall able to withstand the extreme weather conditions in the area.	
31	Constructional features	As per clause 4.0 of this specification	
32	Fittings and accessories	As per clause 5.0 of this specification	
33	Provision of shield	Shield winding shall be provided between LV & HV windings. Each LV winding must be capable of handling non-sinusoidal voltage with voltage gradient as per applicable standards. Also, shield winding shall be taken out from tank with separate connection for each LV with shield bushing and same shall be brought down along with support insulator from tank & copper flat upto the bottom of the tank for grounding. Shield bushing shall be rated for 3.6kV.	
34	Load loss at principal tap at 75 deg C at rated current and frequency	Vendor to indicate the value of load loss meeting the minimum efficiency requirement.	To be provided during detailed engineering
35	No load current at rated voltage and frequency	Vendor to indicate value (%)	
36	Efficiency at 75°C at UPF	Minimum 98.5% at full load Vendor to indicate value	
37	Maximum Efficiency (%) and load at which it occurs (kVA)	Vendor to indicate value	
38	Overall dimension in mm Length x Breadth x Height	This shall be provided by vendor.	
39	Oil capacity (in Litres)	Vendor to mention Oil capacity.	
40	Weight of transformer (kg)	This shall be provided by vendor.	
41	Minimum Creepage distance	31mm/ kV	

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4.0 Construcational features and details of transformer components

4.0	Governing standard	IS: 2026 and IS: 3639 or equivalent international standard.
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4.1 Tank

4.1.1	The transformer tank and cover shall be fabricated from high grade low carbon plate steel of tested quality. The tank and cover shall be of welded construction and there should be provision for lifting by crane.
4.1.2	At least two adequately sized inspection hole(s) with welded flange(s) and bolted cover(s) shall be provided, one at each end of the tank. The inspection hole(s) shall be sufficient size to afford easy access to the lower ends of the bushings, terminals etc.
4.1.3	The interior of the tank shall be cleaned by sand blasting and painted with two coats of heat resistant and oil insoluble insulating varnish of white shade.
4.1.4	All bolts and nuts exposed to atmosphere shall be galvanized. All bolted connections to the tank shall be fitted with suitable oil-tight gaskets that shall give satisfactory service under the operating conditions for complete life of the transformer, if not opened for maintenance at site.
4.1.5	Transformer tank shall be mounted on bi-directional rollers for rail gauge suitable as per IS / CBIP. Suitable locking arrangement shall be provided to prevent accidental movement of transformer. Tank shall also be provided with lifting lugs and minimum four jacking pad.
4.1.6	The tank together with radiators, conservator, bushings and other fittings shall be designed to withstand the following conditions without permanent distortion: (i) Full vacuum (mm of Hg – value as per latest CBIP Manual), for filling with oil by vacuum. Internal gas pressure of 0.35 Kg/cm² (5 lbs/sq.in) with oil as at operating level. (ii) The transformer shall have conservator tank of adequate capacity to accommodate oil preservation system and volumetric expansion of total transformer oil. The conservator shall be bolted into position so that it can be removed for cleaning purposes. (iii) The conservator shall be of single compartment type. The top of the conservator shall be connected to the atmosphere through indicating type cobalt free silica gel breather (in transparent enclosure). Silica gel shall be isolated from atmosphere by an oil seal. (iv) The tank cover shall be suitably sloped so that it does not retain rain water. The material used for gaskets shall be cork, neoprene or approved equivalent. (v) Inside of tank and accessories (except M Box) shall be painted with Oil & heat resistant fully glossy white tupe of paint ,one coat minimum with total DFT 30 microns (vi) Internal Radiator surface shall be painted with Hot oil proof, low viscosity varnish and subsequent flushing with transformer oil.
4.1.7	The adverse effect on life of transformer due to cloud intermittency and solar generation loading cycle must be compensated through suitable design.

	PURCHASE SPECIFICATION FOR SUPPLY AND COMMISSIONING SUPPORT OF ONAN TYPE, 3-PHASE, 2-WINDING, 2.7 MVA, 33KV / 630V INVERTER DUTY TRANSFORMER	PS-439-1330
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4.1.8	The thermal design of Inverter Transformer needs to consider the temperature dependent performance of the inverter. It is to in accordance with Inverter output and under worst condition it should not limit inverter output. (Temperature dependent performance of the inverter data will be provided during detailed engineering stage)
4.1.9	In case of inverter transformer, it shall be proven and of successfully type tested design including short circuit test (as per IEC 60076 part5).
4.1.10	Contacts from Inverter transformer and Auxiliary transformer fittings/protection devices shall be wired for tripping of inverter transformer Circuit Breaker. Detailed scheme regarding same shall be finalized during detailed engineering.

4.2 Core

4.2.1	The magnetic circuit shall be of core type. The core shall be constructed from high grade, non-ageing, cold rolled, super grain oriented silicon steel laminations (CRGOS) equivalent to M4 grade steels or better.
4.2.2	The insulation structure of the core to clamp plates shall be such that it withstands a voltage of 2kV (rms) for one minute in air.
4.2.3	Adequate lifting lugs will be provided to enable the core & windings to be lifted.

4.3 Windings

4.3.1	Windings shall be of electrolytic grade copper/Aluminum free from scales & burrs.
4.3.2	Windings shall have uniform insulation.
4.3.3	Tapping shall be so arranged as to preserve the magnetic balance of the transformer at all voltage ratios.
4.3.4	The completed core and coil assembly shall be dried in vacuum and shall be immediately impregnated with oil after the drying process to ensure elimination of air and moisture within the insulation.
4.3.5	Windings shall be made in dust proof and conditioned atmosphere.

4.4 Internal earthing

4.4.1	The frame work and clamping arrangements of core and coil shall be securely earthed inside the tank by copper strip connection to the tank.
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4.5 Bushings

4.5.1	Bushings shall be designed and tested to comply with the applicable standards. If type test certificates are not available, these tests shall also be carried out in addition to the routine tests. Bushings rated for 400A and above shall have non-ferrous flanges and hardware. Bushings shall be supplied with terminal connector clamp suitable for connecting the cables. Bushings below 52 kV shall be oil communicating type with porcelain insulator. No arcing horns to be provided on the bushings. Inverter Transformer LV bushing palms shall be silver/tin plated. Bushing CTs Shall be of adequate rating for protection as required, WTI (WTI CT applicable for transformer above 50 KVA) etc. All CTs (except WTI) shall be mounted in the turret of bushings, mounting inside the tank is not permitted. All CT terminals shall be provided as fixed type terminals on the M. Box to avoid any hazard due to loose connection leading to CT opening. In no circumstances Plug In type connectors shall be used for CT.
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4.6 Cables boxes and disconnecting chambers

4.6.1	Cable boxes shall be supplied with gland plates having holes to suit BHEL specified cables.
4.6.2	Cable boxes / disconnecting chambers shall be provided with body earth terminals.
4.6.3	LV cable boxes shall be provided with necessary LV bushings, bus bars, bus bar supports for making cable terminations. LV neutral cable box- separate cable box shall be provided for each LV neutral
4.6.4	HV cable boxes shall be segregated air insulated type & shall be of sufficient size to accommodate Employer's cable & termination. Phase segregation shall be achieved by insulating barriers (for 3.3 kV and above side) necessary HV bushings and terminals for making cable terminations.
4.6.5	Cable boxes shall be provided with suitable gaskets to ensure the specified protection class requirement (IP55). Cable boxes / disconnecting chambers shall be provided with necessary arrangements to prevent entry of rain water into the same. The support from base for the cable box (for 3.3 kV and above side) shall be of galvanized iron. The minimum length provided for terminating BHEL 33 kV XLPE cable shall be 1000 mm from cable gland plate to the cable lug) for the cable boxes, for 433V side suitable length shall be provided (shall be discussed during detail engineering). Cable boxes shall be designed such that it shall be possible to move away the transformer without disturbing the cable terminations, leaving the cable box on external supports (as applicable).

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	Cable boxes shall have removable top cover (for transformer above 100 KVA) & ample clearance shall be provided to enable either transformer or each cable to be subjected separately to high voltage test.
4.6.6	Disconnecting chambers: (1) Disconnecting chambers shall be provided to enable the transformer to be removed without unsealing the cables or draining oil from the main tank. (2) Disconnecting chamber shall be air insulated and complete with seal-off bushings, removable flexible connectors / links and removable covers. (3) Phase-to-phase and Phase-to-ground clearances within the chamber shall be such as to enable either the transformer or cable to be subject separately to HV tests.
4.6.7	Internal surface of cable boxes shall be painted with epoxy enamel white paint. The minimum dry film thickness (DFT) shall be 100 microns.
4.6.8	Cable Entry on LV SIDE • Three wire system • Bottom Entry of cables • Cable size : 6runs per phase 1CX400QMM Aluminium conductor unarmoured XLPE Insulation . • Cable shall be in BHEL Scope • Cable Gland Lugs and SS hardware for connecting cable on LT bus bar Shall be in BHEL scope . Vendor Shall provide hole on the bottom side gland plate of HV Cable box for cable entry
4.6.9	Cable Entry on HV Side • Bottom Entry of cable • RUN OF 1CX240 sqmm 33KV grade Aluminium Conductor armoured XLPE insulation • Cable termination KIT are in BHEL scope • Cable Gland Lugs and SS hardware for connecting cable on HT bus bar Shall be in BHEL scope . Vendor Shall provide hole on the bottom side gland plate of HV Cable box for cable entry

4.7 Neutral bushings

4.7.1	The neutrals of the star-connected LV winding shall be brought out to separate bushing terminals. The neutral bushings shall be provided on the tank at such a location that facilitates connecting cables for testing purposes. Neutral shall not be earthed during normal operation.
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4.8 Marshalling box

4.8.1	Marshalling box shall be tank mounted, outdoor and weather/vermin/dust proof (protection class IP55), sheet-steel (2mm thick minimum) enclosure, with hinged door having padlocking facility and painted.
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	Marshalling box shall have proper lighting and thermostatically controlled space heaters. All doors, covers and plates shall be fitted with neoprene gaskets. Bottom shall be at least 450 mm above floor level and provided with gland plate and cable glands as required. Top surface shall be sloped to drain off water falling on the box.
4.8.2	It shall be in the vendor scope to provide the interconnection cabling between the marshalling box and all the accessory devices of transformer by either PVC insulated unarmored cables routed through GI conduit (or) PVC insulated, armoured cables.
4.8.3	Necessary cable glands shall be provided at the marshalling box for the above mentioned cables as well as for terminating the incoming cables from remote panels.
4.8.4	One dummy terminal block in between each trip wire terminal shall be provided. The terminal blocks shall be ELMEX 10 mm ² or approved equal. At least 20% spare terminals shall be provided on each panel. Wiring scheme (TB details) shall be engraved on an stainless steel plate with viewable font size and the same shall be fixed inside the Marshalling Box door.

4.9 Transformer oil

4.9.1	Transformer Oil shall conform to the requirements of IEC : 60296 Transformers shall be supplied complete with transformer oil. No inhibitors shall be used in the oil.		
4.9.2	In case transformer is supplied partially filled with oil, oil required for topping up shall be supplied in non-returnable sealed containers along with main consignment to avoid any shortage of oil at the time of topping up of oil at site.		
	S.No.	Property	Permissible values
	1	Kinematic Viscosity, mm ² /s	≤ 12 at 40 ° C ≤ 1800.0 at (-)30 ° C
	2	Flash Point, ° C	≥ 140° C
	3	Pour point, ° C	≤ (-)40 ° C
	4	Appearance	Clear , free from sediment and suspended matter
	5	Density kg/dm ³ at 20 ° C	≤ 0.895
	6	Interfacial Tension N/m at 25° C	≥ 0.04
	7	Neutralisation value, mgKOH/g	≤ 0.01
	8	Corrosive sulphur	Non Corrosive
	9	Water content mg/kg	≤ 30 in bulk supply ≤ 40 in drum supply
	10	Anti-oxidants additives	Not detectable
	11	Oxidation Stability -Neutralization value, mgKOH/g -Sludge, % by mass	≤ 1.2 ≤ 0.8
	12	Breakdown voltage As delivered, kV After treatment, kV	≥ 30 ≥ 70
	13	Dissipation factor, at 90° C And 40 Hz to 60 Hz	≤ 0.005

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	14	PCA content	≤1%	
	15	Impulse withstand Level, kVp	≥ 145	
	16	Gassing tendency at 50 Hz after 120 min, mm3/min	≤ 5	

Subsequently oil samples shall be drawn at:

Sr. No.	Parameters	Before filling in main tank & tested for	Prior to energization for Following properties & acceptance norms:
i)	BDV	60 kV (min)	60 kV (min)
ii)	Moisture content	10 ppm (max.)	10 ppm (max.)

4.10 Valves

4.10.1	All valves upto and including 50 mm shall be of gun metal or of cast steel. Larger valves may be of gun metal or may have cast iron bodies with gun metal fittings. Sampling & drain valves should have zero leakage rate.
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4.11 Gaskets

4.11.1	Gasket shall be fitted with weather proof, hot oil resistant, rubberized cork gasket.
4.11.2	If gasket is compressible, metallic stops shall be provided to prevent over compression
4.11.3	The gaskets shall not deteriorate during the life of transformer if not opened for maintenance at site. All joints flanged or welded associated with oil shall be such that no oil leakage or sweating occurs during the life of transformer. The quality of these joints is considered established, only if the joints do not exhibit any oil leakage or sweating for a continuous period of at least 3 months during the guarantee period. In case any sweating / leakage is observed, vendor shall rectify the same & establish for a further period of 3 months of the same. If it is not established during the guaranteed period, the guaranteed period shall be extended until the performance is established.

5.0 Fittings and accessories

Following fittings per transformer shall be provided. In case of non-compliance or deviation, vendor shall indicate and provide comments.

#	Nomenclature of fitting / accessory	Qty
1	Oil conservator with equalizer pipe	1 set
2	HV cable box	1 set
3	HV disconnecting chamber	1 set
4	LV cable box	1 set
5	LV disconnecting chamber	1 set
6	Off circuit tap changing switch (OCTC) with operating knob, tap position marking and locking facility, with warning plate "Tap switch to be operated only with the transformer de-energized".	1 set



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7	Earthing terminals with hardware suitable for connecting 50x6 GI earth strips. Separate terminals shall be provided for cable boxes, tank etc.	1 set
8	Radiators (detachable type) with drain value at the bottom, relief valve at the top, air plug, shut-off valves at every point of connection to the tank and lifting lugs.	4 sets
9	Double float Buchholz relay conforming to IS: 3637 with alarm and trip contact. The relay shall be provided with a test cock suitable for a flexible pipe connection for checking its operation. Buchholz relay shall be provided with 2 nos. shut-off valve (on conservator side and tank side) of size 50 mm for transformer rating up to 10MVA and 80 mm for rating 10MVA and above.	1 set
10	Provision for collecting gas and oil from Buchholz relay	1 set
11	Silica gel dehydrating breather with oil cup; indicating type cobalt free silica gel breather in transparent enclosure. (maximum height 1400 mm above ground level)	1 set
12	Magnetic oil level gauge (MOG), dial type, with alarm contact, minimum and maximum filling level markings. Contact shall be suitable for 110V/220V DC. The oil level at 30 deg C shall be marked on the gauge.	1 set
13	Prismatic / toughened glass oil level gauge for transformer and tap changer chamber with min and max markings.	1 set
14	Spring operated Pressure relief valve with alarm/trip contacts. Location of this valve shall be such that the hot oil discharge shall not fall on the transformer or any of its parts. This shall include all necessary arrangements to facilitate proper discharge of PRV through discharge pipes away from the transformer.	2 sets
15	Explosion vent (double diaphragm) with sight glasses and equalizing pipe connection to conservator	1 set
16	Thermometer pocket for OTI	1 No
17	Temperature sensor for OTI	1 No
18	Thermometer pocket for WTI	1 No
19	CT for WTI	1 No
20	Oil temperature indicator, 150 mm dial type, with alarm and trip contacts, maximum reading pointer & resetting device. Oil temperature range: 0-150 deg C (resolution 1 deg C) Oil temperature accuracy: Minimum 1.5% RTD PT-100 temperature sensor for OTI (IEC 751). Analog output of 4-20mA for remote indication of OTI. Maximum height 1500mm above ground level. Accuracy class of +/-2 deg.	1 No
21	Winding temperature indicator, 150-mm dial type, with alarm and trip contacts, maximum reading pointer & resetting device. Winding temperature range: 0-150 deg C (resolution 1 deg C) Winding temperature accuracy: Minimum 1.5% Analog output of 4-20mA for remote indication of WTI. WTI shall be provided for HV winding and LV winding. Maximum height 1500mm above ground level. Accuracy class of +/-2 deg.	2 Nos (1HV+ 1LV)



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22	Marshalling box (IP55) shall be provided with removable gland plates and glands for cable entry from bottom side. Marshalling box shall be provided with OTI, WTI, transmitters (for 4-20mA output of OTI and WTI), space heater, thermostat, lamp (LED type), MCBs, power socket, switch for WTI, terminal connectors and all other attachments that are necessary to meet its functional aspects. Terminal connectors for the following signals / connections shall be made available. Number of terminal connectors for each case shall be as per connection requirements: PT-100 sensor from thermometer pocket 1) 4-20mA output for OTI 2) 4-20mA output for WTI 3) WTI CT secondary 4) Alarm contact of WTI 5) Trip contact of WTI 6) Alarm contact of OTI 7) Trip contact of OTI 8) Buchholz relay alarm 9) Buchholz relay trip 10) Magnetic oil level gauge alarm 11) Pressure relief valve alarm 12) 90-260V DC power supply (external source) 13) 240V AC supply (external source) 14) Spare connectors: Eight terminals Note: Alarm and trip contacts shall be rated for 110 / 220V DC which will be confirmed during detailed engineering.	1 set
23	Inspection window with cover	1 set
24	Cover lifting lugs / eyes	2 Nos
25	Core and winding lifting lugs / eyes	2 Nos
26	Tank lifting lugs / eyes for the entire transformer	4 Nos
27	Jacking pad with hauling eyes, to enable transformer with oil to be raised or lowered using hydraulic or screw jacks.	4 sets
28	LV cable box supports with mounting plates	2 sets
29	HV cable box supports with mounting plates	2 sets
30	Bi-directional flat rollers	4 sets
31	Base channel with towing holes / lugs	2 sets
32	Air release hole with plug	1 No
33	Oil filling hole with cap	1 No
34	Top filter cum sampling valve with threaded male adapter (blanking plug)	1 No
35	Bottom filter valve with threaded male adapter (blanking plug)	1 No

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36	Drain valve at the bottom most point of the tank. for conservator, with blanking plug	1 No
37	Shut-off valves for conservator	2 Nos
38	Bottom Sampling valve, with blanking plug	1 No
39	Shut-off valves for radiators, with open and close markings	8 Nos
40	Drain / Sludge valve at bottom most point of tank to be provided for easy flush out / removal of sludge during maintenance	1 No
41	Valve schedule plate made of stainless steel or aluminium (anodized)	1 No
42	Rating and diagram plates made of stainless steel or anodized aluminium (Hindi and English)	2 Nos
43	Terminal marking plates	1 Set
44	Core to frame earthing hood (2kV isolation)	1 No
45	Earthing pads	2 Nos
46	Rain hoods on Buchholz, MOG and PRD with entry points of wires suitably sealed	1 set
47	Bolts & nuts – G.I / S.S – For all current carrying parts, S.S hardware shall be provided and all other places, G.I hardware shall be provided.	1 set
48	Protected type Mercury or alcohol in glass thermometer	1 No
49	Gas sampling pet cock for Buchholz Relay	1 No
50	Shielding Bushing along with copper flat and insulators	2 set
51	Valves on transformer tank for NIFPS connection	1 set
52	Provision for connecting Isolation valve (TCIV) of NIFPS System between transformer tank and conservator	1 set
53	Mounting arrangement on transformer tank for NIFPS control box mounting	1 set
54	Mounting arrangement on transformer tank for mounting of fire detectors for NIFPS	1 set
55	LV neutral cable box	1 set

6.0 Inspection and testing of transformers at vendor works

6.1	Vendor shall provide inspection call to BHEL for the type and routine tests. Prior to the call, vendor shall submit the detailed manufacturing quality plan (MQP) format for approval. Inspection shall be carried out jointly by BHEL and customer.
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7.0 Routine, Type & Special tests (as per CBIP, IEC 60076 and IS: 2026 latest amendment)

7.1	Routine Tests (On all transformers): 1. All routine tests as per IS: 2026 / IEC 60076. shall be conducted on 100% transformers in the scope of supply of this tender. 2. In addition to the above, the following test as per procedure below has to be conducted on all transformers as per IS 2026/ CBIP: 3. Measurement of Voltage Ratio & phase displacement (as per IEC 60076-1) 4. Measurement of winding resistance on all the taps (as per IEC 60076-1) 5. Vector group and Polarity Check (as per IEC 60076-1) 6. Magnetic Balance and Magnetising Current Test 7. Measurement of no load current with 415 V, 50 Hz AC supply 8. Measurement of no load losses and current at 90%, 100% & 110% of rated voltage (as per IEC 60076-1) 9. Load Loss & Short Circuit Impedance Measurement on principal & Extreme Taps 10. IR measurement (As per IEC 60076-1) 11. Measurement of capacitance & tan delta to determine capacitance between winding & earth. 12. Separate Source Voltage Withstand Test /Applied voltage test (as per IEC 60076-3) 13. Induced overvoltage test/Induced voltage withstand(IVW) test as per IEC60076 part 3 14. Repeat no load current/loss & IR after completion of all electrical test 15. Oil leakage test on completely assembled transformer along with radiators (as per relevant clause of this sub section) 16. Jacking test followed by D.P. test 17. Marshalling Box/Cable box: It shall not be possible to insert a thin sheet of paper under gaskets and through enclosure joints. 18. IR measurement on wiring of Marshalling Box. -Oil Leakage Test on completely assembled transformer - All tank & oil filled compartment shall be tested for oil tightness by being completely filled with oil of viscosity not greater than that of specified oil at the ambient temperature & applying pressure
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7.2	equal to the normal pressure plus 35 KN/sq.m measured at the base of the tank. The pressure shall be maintained for a period of not less than 24 hours during which time no sweating shall occur. Type Tests (On 1 No. Transformer) 1) Type Test of the transformer shall be carried out in accordance with IS: 2026/ IEC 60076 2) In case the transformer manufacturer has conducted all type tests required as per IS 2026/ IEC 60076 within last ten years as on the date of bid opening, the type test reports have to be submitted to BHEL/BHEL Customer for waiver of conductance of such type test(s). These reports shall be for the tests conducted on the equipment similar to those proposed to be supplied under this contract and test(s) shall have been either conducted at an independent laboratory or shall have been witnessed by a client.
7.3	Special Tests (1 No. Transformer) 1) Lightning impulse (Full and chopped wave) test on windings (as per IEC 60076-3) (Not applicable for LV) 2) Temperature Rise test at a tap corresponding to maximum losses as per IEC 60076. Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS:10593 (based on IEC: 60599). 3) Measurement of harmonics of no load current (special test) 4) Measurement of acoustic noise level as per NEMA TR-1 (special test) 5) Tank Vacuum & Pressure Test (as per CBIP norms)
7.4	Short Circuit Test:- Valid type test report shall be submitted along with the offer. In this regard the guidelines given in Annexure-A with applicable tables of the IEC 60076-5 is to be followed. Note: - The reference transformer chosen for type/special test shall be of the same application. - Winding configuration, conductor current density as per Annexure of the latest IEC 60076-5

8.0 Tests at Site:

8.1	After erection at site all transformer(s) shall be subjected to the following tests: i. Insulation resistance test. ii. Measurement of Voltage Ratio iii. Polarity test. iii. Magnetic Balance test
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	iii. Dielectric test on oil. iv. Physical check. v. Breakdown voltage on transformer oil. Oil filtration (if Oil BDV is not satisfactory) These tests shall be conducted under the supervision of transformer manufacturer.
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9.0 Documents to be submitted along with offer

9.1	Following documents shall be submitted to BHEL along with technical offer: (1) Filled in values/details wherever the same is asked for in BHEL technical specifications (2) Confirmation of NIL deviation to BHEL Purchase Spec. In case any deviation is taken, vendor shall indicate the clause no., BHEL requirement as per the subject clause and the deviation taken. Absence of any deviation sheet shall be taken as compliance of BHEL specification in total without any deviation. (3) Valid short circuit type test report of similar type inverter duty transformer of 33KV, 5.3MVA or higher capacity.
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10.0 Documents to be submitted after receipt of purchase order

10.1	Following documents shall be submitted for BHEL approval within seven days from date of purchase order. (1) Drawings (a) Overall General Arrangement (plan, elevation, end view) with overall dimensions and BOM. (b) Rating plate details (c) Valve schedule plate details with elevation and side view showing valve positions (d) HV cable box with disconnecting chamber, bushings, gland plate, cable termination details etc. (e) LV cable box with disconnecting chamber, bushings, gland plate, cable termination details etc. (f) Marshalling box GA (front view, side view, bill of items) and wiring diagram (g) Foundation plan (h) Bill of material of transformer (i) Untanking details (removal of core and assembly from tank) (2) Guaranteed technical specification of transformer in line with Appendix-B (schedule of technical particulars to be furnished by manufacturer) of IS: 2026 (part-1)-1977. (3) Manufacturing Quality Plan (routine tests, type tests, test certificates) covering incoming materials, in-process checks during manufacturing, final inspection, finished goods, packing and forwarding. (4) Manufacturing clearance shall be subject to approval of the above documents by BHEL/customer.
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11.0 Documents to be submitted along with consignment

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11.1	Following documents shall be submitted to BHEL at the time of delivery of the consignment: (1) As built drawings of transformer (2) Routine test reports on transformer (3) Type test reports of transformer (4) Test certificate for transformer oil (5) Operations and maintenance manual of transformer in hard + soft copy
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12.0 Support from vendor during document approval phase

12.1	During the phase of approval of design / engineering / quality documents (GA, DS, BOM, MQP, Test report etc), it will be required to hold in-depth discussions with BHEL/customer to provide clarifications through clear understanding of technical queries. Accordingly, when needed, vendor shall hold direct (across-the-table) discussions with BHEL (Bangalore office) and customer to eliminate undue time delays.
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**PURCHASE SPECIFICATION
FOR
SUPPLY AND COMMISSIONING SUPPORT
OF
ONAN TYPE, 3-PHASE, 3-WINDING, 5.3MVA, 33KV / 630V - 630V
INVERTER DUTY TRANSFORMER**

01	26-11-2020	VIPINDAS CP	PRACHI RAO V
Revision Reason: LV voltage defined as 630V.	Date	Prepared	Checked & Approved

	PURCHASE SPECIFICATION FOR SUPPLY AND COMMISSIONING SUPPORT OF ONAN TYPE, 3-PHASE, 3-WINDING, 5.3 MVA, 33KV / 630V - 630V INVERTER DUTY TRANSFORMER	PS-439-1331
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1.0 INTRODUCTION

This document details the technical specifications, supply conditions, erection and commissioning and post-commissioning requirements for ONAN type, 5.3 MVA, 33kV/ 630V-630V, 3-phase, 3-winding, inverter duty transformers for Continuous Solar Inverter application and converter duty (Outdoor) Floating solar PV grid connected power plants.

2.0 LIST OF ITEMS

2.1	ONAN type, 3-phase, 3-winding, Inverter Duty Transformer with two identical LV windings and one HV winding - Rating 5300 kVA 1) HV Voltage: 33kV 2) LV voltage : 630V 3) Vector group: Dyn11yn11	Qty as per BHEL tender requirement																																				
2.2	Spares shall be offered as per list below: <table border="1"> <thead> <tr> <th>#</th><th>Spares(O&M)</th><th>Qty</th></tr> </thead> <tbody> <tr> <td>1</td><td>HV Bushings with metal parts and gaskets</td><td>1 sets (3 Nos)</td></tr> <tr> <td>2</td><td>LV Bushings with metal parts and gaskets</td><td>1 set (6 Nos)</td></tr> <tr> <td>3</td><td>LV Neutral Bushing</td><td>1 set (2 Nos)</td></tr> <tr> <td>4</td><td>Set of valves (Each set shall represent complete qty of different types of valves used in one transformer. Total list of valves shall be indicated by vendor during detailed Engg)</td><td>1 set</td></tr> <tr> <td>5</td><td>Pressure Relief Device with trip contacts</td><td>2 No</td></tr> <tr> <td>6</td><td>Winding temperature indicator with alarm & trip contacts along with 4-20mA transmitter</td><td>1 No</td></tr> <tr> <td>7</td><td>Oil temperature indicator with alarm & trip contacts along with 4-20mA transmitter</td><td>1 No</td></tr> <tr> <td>8</td><td>Buchholz Relay (complete unit)</td><td>1 No</td></tr> <tr> <td>9</td><td>Magnetic Oil Level Gauge (MOG)</td><td>1 No</td></tr> <tr> <td>10</td><td>Set of Gaskets (Each set shall represent complete qty of different types of gaskets used in one transformer. Total list of gaskets shall be indicated by vendor during detailed Engg)</td><td>1 set</td></tr> <tr> <td>11</td><td>Transformer Oil</td><td>10 % of total quantity of extra oil required for all the transformers</td></tr> </tbody> </table> Notes: a) Vendor shall provide a complete list of spares showing item-wise unit price, quantity and total price. b) BHEL reserves the right in selection and inclusion of the spares in the final scope of supply.		#	Spares(O&M)	Qty	1	HV Bushings with metal parts and gaskets	1 sets (3 Nos)	2	LV Bushings with metal parts and gaskets	1 set (6 Nos)	3	LV Neutral Bushing	1 set (2 Nos)	4	Set of valves (Each set shall represent complete qty of different types of valves used in one transformer. Total list of valves shall be indicated by vendor during detailed Engg)	1 set	5	Pressure Relief Device with trip contacts	2 No	6	Winding temperature indicator with alarm & trip contacts along with 4-20mA transmitter	1 No	7	Oil temperature indicator with alarm & trip contacts along with 4-20mA transmitter	1 No	8	Buchholz Relay (complete unit)	1 No	9	Magnetic Oil Level Gauge (MOG)	1 No	10	Set of Gaskets (Each set shall represent complete qty of different types of gaskets used in one transformer. Total list of gaskets shall be indicated by vendor during detailed Engg)	1 set	11	Transformer Oil	10 % of total quantity of extra oil required for all the transformers
#	Spares(O&M)	Qty																																				
1	HV Bushings with metal parts and gaskets	1 sets (3 Nos)																																				
2	LV Bushings with metal parts and gaskets	1 set (6 Nos)																																				
3	LV Neutral Bushing	1 set (2 Nos)																																				
4	Set of valves (Each set shall represent complete qty of different types of valves used in one transformer. Total list of valves shall be indicated by vendor during detailed Engg)	1 set																																				
5	Pressure Relief Device with trip contacts	2 No																																				
6	Winding temperature indicator with alarm & trip contacts along with 4-20mA transmitter	1 No																																				
7	Oil temperature indicator with alarm & trip contacts along with 4-20mA transmitter	1 No																																				
8	Buchholz Relay (complete unit)	1 No																																				
9	Magnetic Oil Level Gauge (MOG)	1 No																																				
10	Set of Gaskets (Each set shall represent complete qty of different types of gaskets used in one transformer. Total list of gaskets shall be indicated by vendor during detailed Engg)	1 set																																				
11	Transformer Oil	10 % of total quantity of extra oil required for all the transformers																																				

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2.3	Installation and commissioning support for the transformers at site: BHEL scope of activities at site for installation and commissioning: (1) Movement and positioning of transformers on their respective foundations. BHEL shall arrange all necessary labour, machinery and tools. (2) Erection / assembly of transformer fittings and accessories. BHEL shall arrange all necessary labour, machinery and tools. (3) Laying of LV/HV cables, erection of HV termination kits and cable terminations at the LV/HV cable boxes. BHEL shall arrange all necessary labour and tools. Supply of cables and accessories (glands, lugs, nuts, washers in BHEL scope. Vendor scope of activities at site for commissioning: (1) Supervision of erection / assembly of transformer fittings and accessories including marshalling box wiring. This shall include providing technical guidance to BHEL erection team wherever required. (2) Commissioning / service engineer(s) shall be available at site at the time of commissioning of the power plant. All necessary guidance / support in overcoming technical problems (if any) related to the transformers. A single lump-sum price on per-transformer basis shall be offered. The lump-sum price shall include all the costs that will be incurred by the vendor towards the above activities including travel, boarding, lodging and any other contingency expenses.		1 AU per transformer 1 AU (Activity Unit) = I&C Support for 1 No. transformer
2.4	Service during Warranty Warranty shall be for 60 months from the date of commission or 63 months from the date of supply, whichever earlier, Vendor shall enclose, along with technical bid, the complete scope, terms and conditions of the warranty. During the warranty period, whenever a technical problem is encountered with transformers, BHEL will report the same to the vendor. All parts of the transformers shall be covered under warranty. Replacement of all defective material during warranty period shall be in scope of the vendor. Vendor shall ensure that the problem is attended to by their service engineer within two days from the date of reporting.		

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3.0 Technical specification

#	Technical parameter	BHEL specification	
1	Transformer type	Outdoor, oil-immersion type ONAN, Inverter Duty. Inverter Transformer shall be designed for at least 5% total harmonic distortion (THD)	
2	IP class	Transformer, including the cable box and marshalling box shall be of IP55 or better.	
3	Application	Grid-connected solar photovoltaic power plant.	
4	Governing Standards	Power Transformer	IS: 2026, IS: 6600, IEC:60076,CBIP, IS 1180
		Fittings and Accessories	IS: 3639
		Insulating Oil	IEC: 60296
		Bushings	IS: 2099, IEC: 60137, IS 20650 IEC 144, IEC 137, IS 3347, IS 12676
		Bushing CTs	IS:2705 , IEC 60185
		Degree of protection	IS: 2147, IEC 76
		Tests and tolerance of guaranteed particulars	IS: 2147, IEC 76
		Buchholz relay	IS: 3637
		Electrical insulation classified by thermal stability	IS: 1271, IEC 85
		Climate proofing	IS: 3202, IEC 354
		Indian Electricity Act 2003, BEE Guideline 3 star or better & CEA regulations/notifications	
5	Rating in KVA	5300 kVA	
6	No. of phases	3	
7	Frequency	50 Hz, +/- 3%	
8	HV winding	One 3-phase winding with Delta connection. HV voltage: 33KV	
9	LV windings	Two independent 3-phase windings, each with Star connection. LV voltage: as defined at Cl. 2.1. Each winding shall have an identical and equal rating (each winding shall be rated at 50% of overall transformer rated kVA). Design shall be such that transformer shall have identical performance for both the LV windings. Even when one LV winding is not fed from solar generation side, performance of the other (operational) LV winding shall remain unaffected.	
10	Winding material	Electrolytic grade copper/Aluminum for both HV and LV windings.	
11	Winding Insulation	Class A	

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12	Neutral on LV side	Neutral terminals of both LV windings shall be brought out separately through bushings. The neutral bushing shall be covered with M.S / FRP Sheet and there shall be a warning plate/ label provided for the neutral bushing: “For testing purpose only. Do not earth”.
13	Vector Group	Dyn11yn11
14	Rated Thermal Short time current withstand time	25kA for 2 sec
15	% Impedance on principal tap, at 2.65 MVA base at 75deg C and 50 deg C	HV - (LV1 + LV2): 7 % HV - LV1 / LV2 : 7 % LV1 – LV2 : 11% (min) Tolerance shall be as per IS 2026
16	Termination HV/LV/Orientation	Air insulated cable box with disconnecting chamber, for both HV and LV sides. Cable box / Cable box / 180°.
17	Cable entry on HV side	- Bottom entry of cables. - Cable size: 1 run per phase of 1Cx240 sq-mm, 33kV grade, aluminum conductor, armoured, XLPE insulation, PVC sheath as per IS: 7098. - Cables, lugs, glands, etc shall be in BHEL SCOPE The minimum length provided for terminating 33KV XLPE cable shall be 1000MM from cable gland plate to cable lugs in the cable boxes. - Cable OD will be intimated to the vendor at the time of manufacturing. -
18	Cable entry on LV side	- Three wire system. No neutral wire - Bottom entry of cables - Cable size: 6 runs per phase of 1CX400 sqmm, aluminum conductor, Un-armoured, XLPE insulation, PVC sheath as per IS: 7098. - Cables, lugs, glands etc shall be in BHEL SCOPE - Vendor shall provide holes in the busbars and on the bottom-side gland-plate of LV side cable box for placement of glands. The minimum length provided for terminating LV cable shall be 650MM from cable gland plate to cable lugs in the cable boxes. - Cable OD shall be informed to vendor during drawings approval by BHEL. Cables shall enter the cable box straight upwards and get connected to the bus bars. After entry into cable box, cables shall not undergo any bends or turns. Cables shall enter the cable box straight upwards and get connected to the bus bars. After entry into cable box, cables shall not undergo any bends or turns.
19	Tapping on HV winding	Off circuit tap changer (OCTC) switch with tap positions range from -5% to +5% in steps of 2.5%.



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20	Loading Capability	Continuous operation at rated MVA on any tap with voltage variation of +/-10%. Transformer shall be capable of being loaded in accordance with IS: 6600 / IEC 60076-7 upto a load of 150%. There shall be no limitation imposed by bushings etc. or any other associated equipment.
21	Ambient temperature	Max 50 deg C
22	Temperature rise	For top oil: Max.50 deg C by thermometer method. For winding: Max. 55 deg C by resistance method. Both rises shall be over an ambient temperature of 50 deg C irrespective of tap position.
23	Flux density	Not to exceed 1.9 Wb/sq.m at any tap position with +/-10% voltage variation from voltage corresponding to the tap. Transformer shall also withstand following over-fluxing conditions due to combined voltage and frequency fluctuations: a) 110% for continuous rating b) 125% for at least one minute c) 140% for at least five seconds Vendor shall furnish over-fluxing characteristics upto 150% during detailed engg. The transformer shall also be capable of withstanding without damage during the time, for a duration of at least two seconds the stresses caused by short circuit limited only by the transformer impedance with 110% rated voltage maintained at source end.
24	Air Clearances	As per CBIP
25	Harmonics	Shall be designed to suppress harmonics especially 3rd & 5th. Inverter Transformer shall be designed for at least 5% total harmonic distortion (THD)
26	Noise level	As per NEMA TR-1 standard
27	Highest system voltage	LV side: 3.6kV HV side: 36 kV
28	Insulation Class (Winding and bushing)	As per relevant IS / IEC standard LV side winding and bushing insulation class shall be of at least 3.6 kV
29	Insulation levels Rated Lightning Impulse withstand voltage / Short duration power frequency withstand voltage	As per IEC 60137
30	Painting	The inside of tank and accessories (except M. Box) shall be painted with one coat of Oil & heat resistant fully glossy white colour with minimum DFT of 30 microns. The external paint colour of transformer & accessories including M Box shall be blue corresponding to RAL 5012. The external surface of

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		transformer & accessories shall have one coat of chemical resistant epoxy zinc phosphate primer Chemical resistant epoxy zinc phosphate primer, MIO (Micaceous iron oxide) as intermediate paint followed by polyurethane finish paint with minimum DFT of 100 microns. The internal surface of Marshalling Box shall have two coats of chemical resistant epoxy zinc phosphate primer and two coats of chemical & thermal resistant epoxy enamel white paint with minimum DFT of 100 microns. *Paint shall able to withstand the extreme weather conditions in the area.	
31	Constructional features	As per clause 4.0 of this specification	
32	Fittings and accessories	As per clause 5.0 of this specification	
33	Provision of shield	Shield winding shall be provided between LV & HV windings. Each LV winding must be capable of handling non-sinusoidal voltage with voltage gradient as per applicable standards. Also each shield winding shall be taken out to tank with two separate connections from shield to bushing with proper support with 2 nos. 3.6 kV shield bushings and same shall be brought down along with support insulator from tank & copper flat up to the bottom of the tank for independent grounding. Shield bushing shall be rated for 3.6kV.	
34	No load current at rated voltage and frequency	Vendor to indicate value (%)	To be provided during detailed engineering
35	Efficiency at 75°C at UPF	Minimum 98.5% at full load Vendor to indicate value	
36	Maximum Efficiency (%) and load at which it occurs (kVA)	Vendor to indicate value	
37	Overall dimension in mm Length x Breadth x Height	This shall be provided by vendor.	
38	Oil capacity (in Litres)	Vendor to mention Oil capacity	
39	Weight of transformer (kg)	This shall be provided by vendor.	
40	Minimum creepage distance	31mm/ kV	

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4.0 Constructional features and details of transformer components

4.0	Governing standard	IS: 2026, IEC 60076 and IS: 3639 or equivalent international standard.
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4.1 Tank

4.1.1	The transformer tank and cover shall be fabricated from high grade low carbon plate steel of tested quality. The tank and cover shall be of welded construction and there should be provision for lifting by crane.
4.1.2	At least two adequately sized inspection hole(s) with welded flange(s) and bolted cover(s) shall be provided, one at each end of the tank. The inspection hole(s) shall be sufficient size to afford easy access to the lower ends of the bushings, terminals etc.
4.1.3	The interior of the tank shall be cleaned by sand blasting and painted with two coats of heat resistant and oil insoluble insulating varnish of white shade.
4.1.4	All bolts and nuts exposed to atmosphere shall be galvanized. All bolted connections to the tank shall be fitted with suitable oil-tight gaskets that shall give satisfactory service under the operating conditions for complete life of the transformer, if not opened for maintenance at site.
4.1.5	Transformer tank shall be mounted on bi-directional rollers for rail gauge suitable as per IS / CBIP. Suitable locking arrangement shall be provided to prevent accidental movement of transformer. Tank shall also be provided with lifting lugs and minimum four jacking pad.
4.1.6	The tank together with radiators, conservator, bushings and other fittings shall be designed to withstand the following conditions without permanent distortion: (i) Full vacuum (mm of Hg – value as per latest CBIP Manual), for filling with oil by vacuum. Internal gas pressure of 0.35 Kg/cm² (5 lbs/sq.in) with oil as at operating level. (ii) The transformer shall have conservator tank of adequate capacity to accommodate oil preservation system and volumetric expansion of total transformer oil. The conservator shall be bolted into position so that it can be removed for cleaning purposes. (iii) The conservator shall be of single compartment type. The top of the conservator shall be connected to the atmosphere through indicating type cobalt free silica gel breather (in transparent enclosure). Silica gel shall be isolated from atmosphere by an oil seal. (iv) The tank cover shall be suitably sloped so that it does not retain rain water. The material used for gaskets shall be cork, neoprene or approved equivalent. (v) Inside of tank and accessories (except M Box) shall be painted with Oil & heat resistant fully glossy white tupe of paint ,one coat minimum with total DFT 30 microns (vi) Internal Radiator surface shall be painted with Hot oil proof, low viscosity varnish and subsequent flushing with transformer oil.
4.1.7	The adverse effect on life of transformer due to cloud intermittency and solar generation loading cycle must be compensated through suitable design.

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4.1.8	The thermal design of Inverter Transformer needs to consider the temperature dependent performance of the inverter. It is to in accordance with Inverter output and under worst condition it should not limit inverter output. (Temperature dependent performance of the inverter data will be provided during detailed engineering stage)
4.1.9	The multi-winding transformer needs to be designed for long term operating conditions with asymmetrical load on LV side i.e., in case three winding design, the transformer needs to operate reliable with only one inverter supplying power to only one LV winding
4.1.10	In case of inverter transformer, it shall be proven and of successfully type tested design including short circuit test (as per IEC 60076 part5).
4.1.11	Contacts from Inverter transformer and Auxiliary transformer fittings/protection devices shall be wired for tripping of inverter transformer Circuit Breaker. Detailed scheme regarding same shall be finalized during detailed engineering.

4.2 Core

4.2.1	The magnetic circuit shall be of core type. The core shall be constructed from high grade, non-ageing, cold rolled, super grain oriented silicon steel laminations (CRGOS) equivalent to M4 grade steels or better.
4.2.2	The insulation structure of the core to clamp plates shall be such that it withstands a voltage of 2kV (rms) for one minute in air.
4.2.3	Adequate lifting lugs will be provided to enable the core & windings to be lifted.

4.3 Windings

4.3.1	Windings shall be of electrolytic grade copper/Aluminum free from scales & burrs.
4.3.2	Windings shall have uniform insulation.
4.3.3	Tapping shall be so arranged as to preserve the magnetic balance of the transformer at all voltage ratios.
4.3.4	The completed core and coil assembly shall be dried in vacuum and shall be immediately impregnated with oil after the drying process to ensure elimination of air and moisture within the insulation.
4.3.5	Windings shall be made in dust proof and conditioned atmosphere.

4.4 Internal earthing

4.4.1	The frame work and clamping arrangements of core and coil shall be securely earthed inside the tank by copper strip connection to the tank.
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4.5 Bushings

4.5.1	Bushings shall be designed and tested to comply with the applicable standards. If type test certificates are not available, these tests shall also be carried out in addition to the routine tests. Bushings rated for 400A and above shall have non-ferrous flanges and hardware. Bushings shall be supplied with terminal connector clamp suitable for connecting the cables. Bushings below 52 kV shall be oil communicating type with porcelain insulator. No arcing horns to be provided on the bushings. Inverter Transformer LV bushing palms shall be silver/tin plated. Bushing CTs Shall be of adequate rating for protection as required, WTI (WTI CT applicable for transformer above 50 KVA) etc. All CTs (except WTI) shall be mounted in the turret of bushings, mounting inside the tank is not permitted. All CT terminals shall be provided as fixed type terminals on the M. Box to avoid any hazard due to loose connection leading to CT opening. In no circumstances Plug In type connectors shall be used for CT.
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4.6 Cables boxes and disconnecting chambers

4.6.1	Cable boxes shall be supplied with gland plates having holes to suit BHEL specified cables.
4.6.2	Cable boxes / disconnecting chambers shall be provided with body earth terminals.
4.6.3	LV cable boxes shall be provided with necessary LV bushings, bus bars, bus bar supports for making cable terminations. LV neutral cable box- separate cable box shall be provided for each LV neutral
4.6.4	HV cable boxes shall be segregated air insulated type & shall be of sufficient size to accommodate Employer's cable & termination. Phase segregation shall be achieved by insulating barriers (for 3.3 kV and above side) necessary HV bushings and terminals for making cable terminations.
4.6.5	Cable boxes shall be provided with suitable gaskets to ensure the specified protection class requirement (IP55). Cable boxes / disconnecting chambers shall be provided with necessary arrangements to prevent entry of rain water into the same. The support from base for the cable box (for 3.3 kV and above side) shall be of galvanized iron. The minimum length provided for terminating BHEL 33 kV XLPE cable shall be 1000 mm from cable gland plate to the cable lug) for the cable boxes, for 433V side suitable length shall be provided (shall be discussed during detail engineering). Cable boxes shall be designed such that it shall be possible to move away the transformer without disturbing the cable terminations, leaving the cable box on external supports (as applicable).

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	Cable boxes shall have removable top cover (for transformer above 100 KVA) & ample clearance shall be provided to enable either transformer or each cable to be subjected separately to high voltage test.
4.6.6	Disconnecting chambers: (1) Disconnecting chambers shall be provided to enable the transformer to be removed without unsealing the cables or draining oil from the main tank. (2) Disconnecting chamber shall be air insulated and complete with seal-off bushings, removable flexible connectors / links and removable covers. (3) Phase-to-phase and Phase-to-ground clearances within the chamber shall be such as to enable either the transformer or cable to be subject separately to HV tests.
4.6.7	Internal surface of cable boxes shall be painted with epoxy enamel white paint. The minimum dry film thickness (DFT) shall be 100 microns.
4.6.8	Cable Entry on LV SIDE • Three wire system • Bottom Entry of cables • Cable size : 6runs per phase 1CX400QMM Aluminium conductor unarmoured XLPE Insulation . • Cable shall be in BHEL Scope • Cable Gland Lugs and SS hardware for connecting cable on LT bus bar Shall be in BHEL scope . Vendor Shall provide hole on the bottom side gland plate of HV Cable box for cable entry
4.6.9	Cable Entry on HV Side • Bottom Entry of cable • RUN OF 1CX240 sqmm 33KV grade Aluminium Conductor armoured XLPE insulation • Cable termination KIT are in BHEL scope • Cable Gland Lugs and SS hardware for connecting cable on HT bus bar Shall be in BHEL scope . Vendor Shall provide hole on the bottom side gland plate of HV Cable box for cable entry

4.7 Neutral bushings

4.7.1	The neutrals of the star-connected LV windings shall be brought out to separate bushing terminals. The neutral bushings shall be provided on the tank at location that facilitates connecting to the earth chamber. Neutral shall solidly be earthed during normal operation.
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4.8 Marshalling box

4.8.1	Marshalling box shall be tank mounted, outdoor and weather/vermin/dust proof (protection class IP55), sheet-steel (2mm thick minimum) enclosure, with hinged door having padlocking facility and painted. Marshalling box shall have proper lighting and thermostatically controlled space heaters.
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	All doors, covers and plates shall be fitted with neoprene gaskets. Bottom shall be at least 450 mm above floor level and provided with gland plate and cable glands as required. Top surface shall be sloped to drain off water falling on the box.
4.8.2	It shall be in the vendor scope to provide the interconnection cabling between the marshalling box and all the accessory devices of transformer by either PVC insulated armoured cables routed through GI conduit (or) PVC insulated, armoured cables.
4.8.3	Necessary cable glands shall be provided at the marshalling box for the above mentioned cables as well as for terminating the incoming cables from remote panels.
4.8.4	One dummy terminal block in between each trip wire terminal shall be provided. The terminal blocks shall be ELMEX 10 mm ² or approved equal. At least 20% spare terminals shall be provided on each panel. The gasket used shall be of neoprene rubber. Wiring scheme (TB details) shall be engraved in a stainless-steel plate with viewable font size and the same shall be fixed inside the Marshalling Box door.

4.9 Transformer oil

4.9.1	Transformer Oil shall conform to the requirements of IEC : 60296 Transformers shall be supplied complete with transformer oil. No inhibitors shall be used in the oil.
4.9.2	In case transformer is supplied partially filled with oil, oil required for topping up shall be supplied in non-returnable sealed containers along with main consignment to avoid any shortage of oil at the time of topping up of oil at site.

S.No.	Property	Permissible values	
1	Kinematic Viscosity, mm ² /s	≤ 12 at 40 ° C ≤ 1800.0 at (-)30 ° C	
2	Flash Point, ° C	≥ 140° C	
3	Pour point, ° C	≤ (-)40 ° C	
4	Appearance	Clear , free from sediment and suspended matter	
5	Density kg/dm ³ at 20 ° C	≤ 0.895	
6	Interfacial Tension N/m at 25° C	≥ 0.04	
7	Neutralisation value, mgKOH/g	≤ 0.01	
8	Corrosive sulphur	Non Corrosive	
9	Water content mg/kg	≤ 30 in bulk supply ≤ 40 in drum supply	
10	Anti-oxidants additives	Not detectable	
11	Oxidation Stability -Neutralization value, mgKOH/g -Sludge, % by mass	≤ 1.2 ≤ 0.8	
12	Breakdown voltage As delivered, kV After treatment, kV	≥ 30 ≥ 70	
13	Dissipation factor, at 90° C And 40 Hz to 60 Hz	≤ 0.005	

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	14	PCA content	≤1%	
	15	Impulse withstand Level, kVp	≥ 145	
	16	Gassing tendency at 50 Hz after 120 min, mm ³ /min	≤ 5	

Subsequently oil samples shall be drawn at:

Sr. No.	Parameters	Before filling in main tank & tested for	Prior to energization for Following properties & acceptance norms:
i)	BDV	60 kV (min)	60 kV (min)
ii)	Moisture content	10 ppm (max.)	10 ppm (max.)

4.10 Valves

4.10.1	All valves upto and including 50 mm shall be of gun metal or of cast steel. Larger valves may be of gun metal or may have cast iron bodies with gun metal fittings. Sampling & drain valves should have zero leakage rate.
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4.11 Gaskets

4.11.1	Gasket shall be fitted with weather proof, hot oil resistant, rubberized cork gasket.
4.11.2	If gasket is compressible, metallic stops shall be provided to prevent over compression
4.11.3	The gaskets shall not deteriorate during the life of transformer if not opened for maintenance at site. All joints flanged or welded associated with oil shall be such that no oil leakage or sweating occurs during the life of transformer. The quality of these joints is considered established, only if the joints do not exhibit any oil leakage or sweating for a continuous period of at least 3 months during the guarantee period. In case any sweating / leakage is observed, vendor shall rectify the same & establish for a further period of 3 months of the same. If it is not established during the guaranteed period, the guaranteed period shall be extended until the performance is established.

5.0 Fittings and accessories

Following fittings per transformer shall be provided. In case of non-compliance or deviation, vendor shall indicate and provide comments.

#	Nomenclature of fitting / accessory	Qty
1	Oil conservator with equalizer pipe	1 set
2	HV cable box	1 set
3	HV disconnecting chamber	1 set
4	LV cable box	2 sets
5	LV disconnecting chamber	2 sets

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6	Off circuit tap changing switch (OCTC) with operating knob, tap position marking and locking facility, with warning plate “Tap switch to be operated only with the transformer de-energized”.	1 set
7	Earthing terminals with hardware suitable for connecting 50x6 GI earth strips. Separate terminals shall be provided for cable boxes, tank etc.	1 set
8	Radiators (detachable type) with drain value at the bottom, relief valve at the top, air plug, shut-off valves at every point of connection to the tank and lifting lugs.	4 sets
9	Double float Buchholz relay conforming to IS: 3637 with alarm and trip contact. The relay shall be provided with a test cock suitable for a flexible pipe connection for checking its operation. Buchholz relay shall be provided with 2 nos. shut-off valve (on conservator side and tank side) of size 50 mm for transformer rating up to 10MVA and 80 mm for rating 10MVA and above.	1 set
10	Provision for collecting gas and oil from Buchholz relay	1 set
11	Silica gel dehydrating breather with oil cup; indicating type cobalt free silica gel breather in transparent enclosure. (maximum height 1400 mm above ground level)	1 set
12	Magnetic oil level gauge (MOG), dial type, with alarm contact, minimum and maximum filling level markings. Contact shall be suitable for 110V/220V DC. The oil level at 30 deg C shall be marked on the gauge.	1 set
13	Prismatic / toughened glass oil level gauge for transformer and tap changer chamber with min and max markings.	1 set
14	Spring operated Pressure relief valve with alarm/trip contacts. Location of this valve shall be such that the hot oil discharge shall not fall on the transformer or any of its parts. This shall include all necessary arrangements to facilitate proper discharge of PRV through discharge pipes away from the transformer.	2 sets
15	Explosion vent (double diaphragm) with sight glasses and equalizing pipe connection to conservator	1 set
16	Thermometer pocket for OTI	1 No
17	Temperature sensor for OTI	1 No
18	Thermometer pocket for WTI	1 No
19	CT for WTI	1 No
20	Oil temperature indicator, 150 mm dial type, with alarm and trip contacts, maximum reading pointer & resetting device. Oil temperature range: 0-150 deg C (resolution 1 deg C) Oil temperature accuracy: Minimum 1.5% RTD PT-100 temperature sensor for OTI (IEC 751). Analog output of 4-20mA for remote indication of OTI. Maximum height 1500mm above ground level. Accuracy class of +/-2 deg.	1 No

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21	Winding temperature indicator, 150-mm dial type, with alarm and trip contacts, maximum reading pointer & resetting device. Winding temperature range: 0-150 deg C (resolution 1 deg C) Winding temperature accuracy: Minimum 1.5% Analog output of 4-20mA for remote indication of WTI. WTI shall be provided for HV winding and both LV windings. Maximum height 1500mm above ground level. Accuracy class of +/-2 deg.	3Nos (1HV+ 2LV)
22	Marshalling box (IP55) shall be provided with removable gland plates and glands for cable entry from bottom side. Marshalling box shall be provided with OTI, WTI, transmitters (for 4-20mA output of OTI and WTI), space heater, thermostat, lamp (LED type), MCBs, power socket, switch for WTI, terminal connectors and all other attachments that are necessary to meet its functional aspects. Terminal connectors for the following signals / connections shall be made available. Number of terminal connectors for each case shall be as per connection requirements: PT-100 sensor from thermometer pocket 1) 4-20mA output for OTI 2) 4-20mA output for WTI 3) WTI CT secondary 4) Alarm contact of WTI 5) Trip contact of WTI 6) Alarm contact of OTI 7) Trip contact of OTI 8) Buchholz relay alarm 9) Buchholz relay trip 10) Magnetic oil level gauge alarm 11) Pressure relief valve alarm 12) 90-260V DC power supply (external source) 13) 240V AC supply (external source) 14) Spare connectors: Eight terminals Note: Alarm and trip contacts shall be rated for 110 / 220V DC which will be confirmed during detailed engineering.	1 set
23	Inspection window with cover	1 set
24	Cover lifting lugs / eyes	2 Nos
25	Core and winding lifting lugs / eyes	2 Nos
26	Tank lifting lugs / eyes for the entire transformer	4 Nos
27	Jacking pad with hauling eyes, to enable transformer with oil to be raised or lowered using hydraulic or screw jacks.	4 sets
28	LV cable box supports with mounting plates	2 sets
29	HV cable box supports with mounting plates	2 sets
30	Bi-directional flat rollers	4 sets
31	Base channel with towing holes / lugs	2 sets

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32	Air release hole with plug	1 No
33	Oil filling hole with cap	1 No
34	Top filter cum sampling valve with threaded male adapter (blanking plug)	1 No
35	Bottom filter valve with threaded male adapter (blanking plug)	1 No
36	Drain valve at the bottom most point of the tank. for conservator, with blanking plug	1 No
37	Shut-off valves for conservator	2 Nos
38	Bottom Sampling valve, with blanking plug	1 No
39	Shut-off valves for radiators, with open and close markings	8 Nos
40	Drain / Sludge valve at bottom most point of tank to be provided for easy flush out / removal of sludge during maintenance	1 No
41	Valve schedule plate made of stainless steel or aluminium (anodized)	1 No
42	Rating and diagram plates made of stainless steel or anodized aluminium (Hindi and English)	2 Nos
43	Terminal marking plates	1 Set
44	Core to frame earthing hood (2kV isolation)	1 No
45	Earthing pads	2 Nos
46	Rain hoods on Buchholz, MOG and PRD with entry points of wires suitably sealed	1 set
47	Bolts & nuts – G.I / S.S – For all current carrying parts, S.S hardware shall be provided and all other places, G.I hardware shall be provided.	1 set
48	Protected type Mercury or alcohol in glass thermometer	1 No
49	Gas sampling pet cock for Buchholz Relay	1 No
50	Shielding Bushing along with copper flat and insulators	2 set
51	Valves on transformer tank for NIFPS connection	1 set
52	Provision for connecting Isolation valve (TCIV) of NIFPS System between transformer tank and conservator	1 set
53	Mounting arrangement on transformer tank for NIFPS control box mounting	1 set
54	Mounting arrangement on transformer tank for mounting of fire detectors for NIFPS	1 set
55	LV neutral cable box	2 sets

6.0 Inspection and testing of transformers at vendor works

6.1	Vendor shall provide inspection call to BHEL for all routine, type and special tests are per relevant clauses. Prior to the call, vendor shall submit the detailed manufacturing quality plan (MQP) format for approval. Inspection shall be carried out jointly by BHEL and customer.
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7.0 Routine, Type & Special tests (as per CBIP, IEC 60076 and IS: 2026 latest amendment)

7.1	Routine Tests (On all transformers): 1) All routine tests as per IS: 2026 / IEC 60076. shall be conducted on 100% transformers in the scope of supply of this tender. 2) In addition to the above, the following test as per procedure below has to be conducted on all transformers as per IS 2026/ CBIP: 3) Measurement of Voltage Ratio & phase displacement (as per IEC 60076-1) 4) Measurement of winding resistance on all the taps (as per IEC 60076-1) 5) Vector group and Polarity Check (as per IEC 60076-1) 6) Magnetic Balance and Magnetising Current Test 7) Measurement of no load current with 415 V, 50 Hz AC supply 8) Measurement of no load losses and current at 90%, 100% & 110% of rated voltage (as per IEC 60076-1) 9) Load Loss & Short Circuit Impedance Measurement on principal & Extreme Taps 10) IR measurement (As per IEC 60076-1) 11) Measurement of capacitance & tan delta to determine capacitance between winding & earth. 12) Separate Source Voltage Withstand Test /Applied voltage test (as per IEC 60076-3) 13) Induced overvoltage test/Induced voltage withstand(IVW) test as per IEC60076 part 3 14) Repeat no load current/loss & IR after completion of all electrical test 15) Oil leakage test on completely assembled transformer along with radiators (as per relevant clause of this sub section) 16) Jacking test followed by D.P. test 17) Marshalling Box/Cable box: It shall not be possible to insert a thin sheet of paper under gaskets and through enclosure joints. 18) IR measurement on wiring of Marshalling Box. -Oil Leakage Test on completely assembled transformer - All tank & oil filled compartment shall be tested for oil tightness by being completely filled with oil of viscosity not greater than that of specified oil at the ambient temperature & applying
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7.2	pressure equal to the normal pressure plus 35 KN/sq.m measured at the base of the tank. The pressure shall be maintained for a period of not less than 24 hours during which time no sweating shall occur. Type Tests (On 1 No. Transformer) 1) Type Test of the transformer shall be carried out in accordance with IS: 2026/ IEC 60076 2) In case the transformer manufacturer has conducted all type tests required as per IS 2026/ IEC 60076 within last ten years as on the date of bid opening, the type test reports have to be submitted to BHEL/BHEL Customer for waiver of conductance of such type test(s). These reports shall be for the tests conducted on the equipment similar to those proposed to be supplied under this contract and test(s) shall have been either conducted at an independent laboratory or shall have been witnessed by a client.
7.3	Special Tests (1 No. Transformer) 1) Lightning impulse (Full and chopped wave) test on windings (as per IEC 60076-3) (Not applicable for LV) 2) Temperature Rise test at a tap corresponding to maximum losses as per IEC 60076. Gas Chromatography shall be conducted on oil sample taken before & immediately after temp. rise test. Gas analysis shall be as per IS: 9434 (based on IEC: 60567), results will be interpreted as per IS:10593 (based on IEC: 60599). 3) Measurement of harmonics of no load current (special test) 4) Measurement of acoustic noise level as per NEMA TR-1 (special test) 5) Tank Vacuum & Pressure Test (as per CBIP norms)
7.4	Short Circuit Test:- Valid type test report shall be submitted along with the offer. In this regard the guidelines given in Annexure-A with applicable tables of the IEC 60076-5 is to be followed. Note: • The reference transformer chosen for type/special test shall be of the same application. • Winding configuration, conductor current density as per Annexure of the latest IEC 60076-5

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8.0 Tests at Site:

8.1	After erection at site all transformer(s) shall be subjected to the following tests: i. Insulation resistance test. ii. Measurement of Voltage Ratio iii. Polarity test. iii. Magnetic Balance test iii. Dielectric test on oil. iv. Physical check. v. Breakdown voltage on transformer oil. Oil filtration (if Oil BDV is not satisfactory) These tests shall be conducted under the supervision of transformer manufacturer.
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9.0 Documents to be submitted along with offer

9.1	Following documents shall be submitted to BHEL along with technical offer: (1) Filled in values/details wherever the same is asked for in BHEL technical specifications (2) Confirmation of NIL deviation to BHEL Purchase Spec. In case any deviation is taken, vendor shall indicate the clause no., BHEL requirement as per the subject clause and the deviation taken. (3) Valid short circuit type test report of similar type inverter duty transformer of 33KV, 5.3MVA or higher capacity.
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10.0 Documents to be submitted after receipt of purchase order

10.1	Following documents shall be submitted for BHEL approval within seven days from date of purchase order. (1) Drawings (a) Overall General Arrangement (plan, elevation, end view) with overall dimensions and BOM. (b) Rating plate details (c) Valve schedule plate details with elevation & side view showing valve positions (d) HV cable box with disconnecting chamber, bushings, gland plate, cable termination details etc. (e) LV cable box with disconnecting chamber, bushings, gland plate, cable termination details etc. (f) Marshalling box GA (front view, side view, bill of items) and wiring diagram (g) Foundation plan (h) Bill of material of transformer (i) Untanking details (removal of core and assembly from tank) (j) Type Test Reports (3) Guaranteed technical specification of transformer in line with Appendix-B (schedule of technical particulars to be furnished by manufacturer) of IS: 2026 Part-1. Over and above the same, any details asked for as per Annexure-1 shall be included. (4) Manufacturing Quality Plan (routine tests, type tests, test certificates) covering Incoming materials, in-process checks during manufacturing, final inspection, finished goods, packing and forwarding. (4) Manufacturing clearance shall be subject to approval of the above documents by BHEL/customer.
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11.0 Documents to be submitted along with consignment

11.1	Following documents shall be submitted to BHEL at the time of delivery of the consignment: (1) As built drawings of transformer (2) Routine test reports on transformer (3) Type test reports of transformer (4) Test certificate for transformer oil (5) Operations and maintenance manual of transformer in hard + soft copy
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12.0 Support from vendor during document approval phase

12.1	During the phase of approval of design / engineering / quality documents (GA, GTP, BOM, MQP, Test report etc), it will be required to hold in-depth discussions with BHEL/customer to provide clarifications through clear understanding of technical queries. Accordingly, when needed, vendor shall hold direct (across-the-table) discussions with BHEL (Bangalore office) and customer to eliminate undue time delays.
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भारत हेवी इलेक्ट्रिकल्स लिमिटेड



Bharat Heavy Electricals Limited

(A Government of India Undertaking)

ELECTRONICS DIVISION

P. B. No. 2606, Mysore Road, Bengaluru - 560 026

SCPV: BOS: ITB-Rev 05

INSTRUCTIONS TO BIDDERS

Bidder is requested to read the instructions carefully and submit their quotation taking into consideration of all the points:

A. GENERAL INSTRUCTIONS:

1. Any Purchase Order resulting from this enquiry shall be governed by the Instructions to Bidders (document reference: SCPV:BOS:ITB-Rev 05), General Conditions of Contract (document reference: SCPV: BOS: GCC-Rev 04) and Special Conditions of Contract, if any, of the enquiry.
2. Any deviations from or additions to the "General Conditions of Contract" or "Special Conditions of Contract" require BHEL's express written consent. ***The general terms of business or sale of the Bidder shall not apply to this tender.***
3. Bidders (Also includes Term Suppliers / Contractors, wherever used in this document) are instructed to Quote their most competitive price and best delivery etc. in the Offer. Prices should be indicated in both figures & words (Please also refer Section-12, under Section-B).
4. Regret letter (either through post or by mail or by EPS) indicating reasons for not quoting must be submitted without fail, in case of non-participation in this tender. Supplier shall be liable for removal as a registered vendor of BHEL when the supplier fails to quote against four consecutive tender enquiries for the same item or all enquiries in last two years for the same item, whichever is earlier.
5. Procurement directly from the manufacturers is preferred. However, if the OEM/ Principal insist on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both. Agent/Representative authorized by the OEM/Principal in turn cannot further sub authorize any other firm for submitting the offer or for placement of order.

In case bids are received from the manufacturer/ supplier and his agent, bid received from the agent shall be ignored.

6. Consultant / firm (and any of its affiliates) shall not be eligible to participate in the tender/s for the related goods for the same project if they were engaged for consultancy services for the same project.
7. If an Indian representative/associate/liaison office quotes on behalf of a foreign based

bidder, such representative shall furnish the following documents:

- (a) Authorization letter to quote and negotiate on behalf of such foreign-based bidder. (Annexure- AF)
- (b) Undertaking from such foreign based bidder that such contract will be honored and executed according to agreed scope of supply and commercial terms and conditions.
- (c) Undertaking shall be furnished by the Indian representative stating that the co-ordination and smooth execution of the contract and settlement of shortages/damages/replacement/repair of imported scope till the Equipment/ System is commissioned and handed over to customer will be the sole responsibility of the Indian representative/associates/agent/liaison office.
- (d) Refer **Annexure I** on “Guidelines for Indian Agents”.
- (e) In case, The Principal manufacturer decides not to quote directly to BHEL and authorized his representative to quote, the format attached as per annexure duly signed and sealed by authorized signatory and the same shall be attached along with offer.

8. (A) In case it is specified in the SCC as the terms of delivery DDP (delivery duty paid) , FOR destination to site, door delivery at site which means material cost, insurance, customs duty, safe guard duty (SGD) or any other taxes, duties, levies etc air freight sea freight customs handling charges inland transport from port to destination to vendor account.

(B) In case of imported scope of supply, (Not Covered in clause 8 A) customs clearance & customs duty payment will be to BHEL account after the consignment is received at Indian Airport /Seaport. Bidders must provide all original documents required for completing the customs clearance along with the shipment. Warehousing charges due to incomplete or missing documentation will be to supplier's account. All offers for imported scope of supply by air, must be made from any of the gateway ports (within the country) indicated (Refer Annexure II).

9. The offers of the bidders who are on the banned list and also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of the banned firms is available on BHEL website: http://www.bhel.com/vender_registration/vender.php
10. Business dealings with bidders will be suspended if they are found to have indulged in any malpractices/misconduct which are contrary to business ethics like bribery, corruption, fraud, pilferage, cartel formation, submission of fake/false/forged documents, certificates, information to BHEL or if they tamper with tendering procedure affecting the ordering process or fail to execute a contract, or rejection of 3 consecutive supplies or if their firms / works are under strike/lockout for a long period. Bidder may refer “Guidelines for Suspension of Business Dealings with Suppliers/ Contractors” available on www.bhel.com for more details.
11. The bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultants/service providers shall strictly adhere to BHEL Fraud Prevention

Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to your notice.

12. Offers to be submitted in English Language only.
13. 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 dated **16.09.2020** issued by DPIIT. In case of subsequent Orders issued by the Nodal Ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of price bid/s against this NIT.

Any Indian Bidder intending to avail the benefits shall submit the requisite documents as per the aforesaid orders. The self declaration for Make in India or CA certificate for Make in India as per Annexure S/CA to be attached with the offer.

14. The Bidder shall mandatorily submit Declaration as mentioned below, under Rule 144(xi) of General Financial Rules, 2017 amendment dt 23.07.2020 issued by Ministry of Finance, Govt. of India. The declaration to be submitted on Company Letter head duly signed and sealed by authorised signatory, for ascertaining the eligibility of offer in the tender.

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered.”

(Where applicable, evidence of valid registration by the Competent Authority shall be attached).

The Competent Authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).

Refer Annexure-X for ‘Restrictions under Rule 144(Xi) of General Financial Rules, 2017 amendment dt: 23.07.2020’.

B. GUIDELINES FOR PREPARATION OF OFFER:

1. Quotation shall be submitted in Single Part Bid, Two Part Bid or Three Part Bid, as called for in the tender:
 - **SINGLE PART BID:** Technical and Commercial Bid with prices along with price summary & filled in BHEL Standard Commercial terms and conditions in a single sealed envelope.
 - **TWO PART BID:** Unpriced offer i.e. “Techno-commercial Bid” with filled in BHEL Standard Commercial terms and conditions in a sealed envelope **along with the copy of the “Price Bid” without the prices** should be enclosed in one cover and the cover must be super scribed **“Techno-commercial offer)** and Priced offer i.e.

“Price Bid” containing price summary in a separate sealed envelope and must be superscribed **“Price Bid”**. Both these envelopes shall be enclosed in a single sealed envelope superscribed with enquiry number, due date of tender and any other details as called for in the tender document.

- **THREE PART BID:** Pre-qualification Bid (Part-I), Techno Commercial Bid with filled in BHEL Standard Commercial terms and conditions (Part-II), and Price Bid (Part-III). All three envelopes shall be enclosed in a single sealed envelope superscribed with enquiry number, due date of tender and any other details as called for in the tender document.

If any of the offers (Part I, Part II or Part III) are not submitted before the due date and time of submission (or) if any part of the offer is incomplete, the entire offer of the bidder will be rejected.

2. Supplier shall ensure to superscribe each envelope with RFQ number, RFQ Date, RFQ Due date and time, Item Description and Project clearly & boldly. Also mention on the envelope whether it is “Techno Commercial Bid” or “Price Bid” or “Pre-Qualification Bid”. Please ensure complete address, department name and purchase executive name is mentioned on the envelope (before dropping in the tender box or handing over) so that the tender is available in time for bid opening.
3. BHEL standard Commercial Terms and Conditions (duly filled, signed & stamped) must accompany Technical-Commercial offer without fail and should be submitted in original only.

The above indicated submission of Offers in “sealed envelope/hard copy” as mentioned in points B.1-B.3 is applicable for tenders that are not floated through E-Procurement System (EPS).

4. Validity: Unless otherwise specified in SCC (special commercial conditions of contract), the offer will be valid for a period of 90 days from the date of part-I bid opening and in case of Negotiation/Counter-offer/Reverse Auction, price validity will apply afresh for a period of 60 days from the date of according final price by bidder (or) upto original validity period, whichever is later.
5. Any of the terms and conditions not acceptable to supplier, shall be explicitly mentioned in the Techno-Commercial Bid. If no deviations are brought out in the offer it will be treated as if all terms and conditions of this enquiry are accepted by the supplier without deviation.
6. Deviation to this specification/item description, if any, shall be brought out clearly indicating “DEVIATION TO BHEL SPECIFICATION” without fail, as a part of Techno-Commercial Bid. If no deviations are brought out in the offer it will be treated as if the entire specification of this enquiry is accepted without deviation.
7. Suppliers shall submit one set of original catalogue, datasheets, bill of materials,

dimensional drawings, mounting details and/or any other relevant documents called in purchase specification as part of Technical Bid. Approximate Packing dimension to be indicated in offer_(L)_ft x_(B)___ft x_(H)_ft, in case of ODC Load. Consignment beyond the dimension_(L)40_ft x_(B)8_ft x_(H)8_ft to be indicated in Offer.

8. "Price Bid" shall be complete in all respects containing price break-up of all components along with all applicable taxes and duties, Packing and forwarding charges, freight charges (if applicable) etc. Once submitted, **NO** modification / addition / deletion will be allowed in the "Price Bid." Bidders are advised to thoroughly check the unit price, total price to avoid any discrepancy.
9. In addition, bidder shall also quote for erection & commissioning charges/erection supervision & commissioning charges (E&C service charges), documentation charges, testing Charges (type & routine), training charges etc. as applicable along with corresponding tax. The price summary must indicate all the elements clearly.
10. Wherever applicable, bidders should indicate "Lumpsum" Erection and Commissioning (or) Erection Supervision and Commissioning charges, as applicable (including To & Fro Fare, Boarding, Lodging, Local Conveyance etc.) for carrying out E&C activity and further handing over to customer. The quotation shall clearly indicate scope of work, likely duration of commissioning, pre-commissioning checklist (if any).
11. Wherever bidders require PAC (Project Authority Certificate)/applicable certificates for import of raw materials, components required for MNRE, DECC, EPCG Power Projects, Export Projects or other similar projects wherein supplies are eligible for customs duty benefits, lists and quantities of such items and their values (CIF) has to be mentioned in the offer. Prices must be quoted taking into account of such benefits.
12. Prices should be indicated in both figures & words. Bid should be free from correction/overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid will be rejected. Any typographical error, totalling mistakes, currency mistake, multiplication mistake, summing mistakes etc. observed in the price bids will be evaluated as per **Annexure III** "Guidelines for dealing with Discrepancy in Words & Figures – quoted in price bid" and BHEL decision will be final.
13. Documents submitted with the offer shall be signed and stamped in each page by authorized representative of the bidder. However, scanned copy to be attached in E-Procurement System (EPS).

C. GUIDELINES FOR OFFER SUBMISSION:

The under-mentioned clauses 1, 2 & 3 will not be applicable for EPS tenders.

1. Offers / Quotations must be dropped in tender box before 13.00 Hrs. on or before due date mentioned in RFQ. The offers are to be dropped in the proper slot of the Tender Box kept in our reception area with caption "CE, SC&PV, DEFENCE". Tenders

are opened on 3 days in a week (Monday/Wednesday/Friday). Tender must be deposited in the slot corresponding to the day (Monday - Box no.4/Wednesday - Box no. 6 /Friday - Box no.8) while depositing the offer.

2. E-Mail/ Internet/EDI offers received in time shall be considered only when such offers are complete in all respects. In case of offers received through E-mail, please send the offer to the email ID specified in the SCC document of the tender.
3. Offers of Vendors who already have a valid Technical/Commercial MOU with BHEL-EDN for the items of the RFQ shall mention the relevant MOU reference no. and give only such other details not covered in the MOU.
4. In cases where tender documents are bulky, or due to some reasons tender documents are required to be submitted by hand or through posts/couriers, the offers are to be handed over either of the two purchase officers whose names are mentioned in the SCC document of tender RFQ.
5. Tenders will be opened on due date, time and venue as indicated in the RFQ in the presence of bidders at the venue indicated in the RFQ. For EPS tenders, e-mail notifications will be automatically generated and forwarded to registered e-mail ID/s of bidders during opening of tenders.
6. Bidder will be solely responsible:
 - (a) For submission of offers before due date and time. Offers submitted after due date and time will be treated as "Late offers" and will be rejected.
 - (b) For submission of offers in the correct compartment of the tender box based on the day of due date (Monday/Wednesday/Friday). Please check before dropping your offer in the correct tender box.
 - (c) For depositing offers in proper sealed condition in the tender box. If the bidder drops the tender in the wrong tender box (or) if the tender document is handed over to the wrong person, BHEL will not be responsible for any such delays.
 - (d) For offers received through email etc., suppliers are fully responsible for lack of secrecy on information and ensuring timely receipt of such offers in the tender box before due date & time (This clause will not be applicable for EPS tenders).

The above indicated submission of Offers as mentioned in points 6(a) to 6(d) is applicable for tenders that are not floated through EPS.

- (e) In case of e-tender, all required documents should be uploaded before due date and time. Availability of power, internet connections, system/software requirements etc. will be the sole responsibility of the bidder. Wherever assistance is needed for submission of e-tenders, help-line numbers as available in the web-site of service provider of BHEL may be contacted.

Purchase Executive/ BHEL shall not be responsible for any of the activities relating to submission of offer.

D. PROCESSING OF OFFERS RECEIVED:

1. Any discount/ revised offer submitted by the supplier on its own shall be accepted provided it is received on or before the due date and time of offer submission (i.e.

Part-I bid). The discount shall be applied on pro-rata basis to all items unless specified otherwise by the bidder.

2. Changes in offers or Revised offers given after Part-I bid opening shall not be considered as a part of the original offer unless such changes/revisions are requested by BHEL. In case of withdrawal of any Technical/Commercial deviation(s) by the bidder before opening of price bids/conducting the Reverse Auction, revision of price/impact bid will not be accepted.
3. In case there is no change in the technical scope and/ or specifications and/ or commercial terms & conditions, the supplier will not be allowed to change any of their bids after Technical bids are opened (after the due date and time of tender opening).
4. In case of changes in scope and/ or technical specifications and/ or commercial terms & conditions by BHEL and it accounts for price implications from bidders, all techno-commercially acceptable bidders shall be asked by BHEL (after freezing the scope, technical specifications and commercial terms & conditions) to submit the impact of such changes on their price bid. Impact price will be applicable only for changes in technical specification / commercial conditions by BHEL. The impact price must be submitted on or before the cut-off date specified by BHEL and the original price bid and the price impact bid will be opened together at the time of price bid opening. Impact price means only for those which have been impacted by addition/deletion/changes in the technical specification or commercial conditions. The impact may be +/- incremental value of the currency in which originally quoted.
5. Un-opened bids (including price bids) will be returned to the respective bidders after release of Purchase order and order acknowledgement. Regarding Offers for EPS tenders that get rejected on PQC/ techno-commercial grounds, the bids for the subsequent parts will not be opened i.e., both technical bid and price bid (Parts-II & III) will not be opened in case of rejection on PQC ground and price bid (Part-II/Part-III, as applicable) will not be opened in case of rejection on techno-commercial ground.
6. After receipt of Purchase Order, supplier should submit required documents viz., specified drawings, bill of materials, datasheets, catalogues, quality plan, test procedure, type test report, O & M Manuals and/or any other relevant documents as per Specification/Purchase Order, as and when required by BHEL/Customer.
7. Any deviation to the terms and conditions not mentioned in the quotation by supplier in response to this enquiry will not be considered, if put forth subsequently or after issue of Purchase Order, unless clarification is sought for by BHEL and agreed upon in the Purchase Order.
8. Evaluation shall be on the basis of delivered cost (i.e. "Total Cost to BHEL"), as per RFQ terms.
"Total Cost to BHEL" shall include total basic cost, packing & forwarding charges, taxes and/or duties (as applicable), freight charges, taxes on Services, customs clearance charges for imported items, any other cost indicated by bidder for

execution of the contract and loading factors (for non-compliance to BHEL Standard Commercial Terms & Conditions). Benefits arising out of Nil Import Duty on DEEC, EPCG, MNRE projects, DFIA Projects, Physical Exports or such 100% exemptions (statutory benefits), project imports, customer reimbursements of statutory duties (like Basic Customs Duty and cess on customs duty), Input tax credits as applicable will also be taken into account for arriving at the Total cost to BHEL (wherever applicable and as indicated in SCC document of tender).

For EPS tenders, it shall be noted that the prices (including discounts) vis-a-vis currency quoted in EPS portal only will be considered as Final for the purpose of evaluation of the lowest bidder. Bidder shall ensure to indicate the applicable taxes against each line item in online portal, failing to which the same will be considered as inclusive/NIL.

In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders. Incase more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s). Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

9. For evaluation of offers in foreign currency, the exchange rate (TT selling rate of SBI) shall be taken as under:

Single part bids	:	Date of tender opening
Two/three part bids	:	Date of Part-I bid opening
Reverse Auction	:	Date of Part-I bid opening

In case of Performance Bank Guarantee (PBG) also, exchange rate will be considered as mentioned above for converting foreign currency to Indian currency and vice versa.

If the relevant day happens to be a bank holiday, then the exchange rate as on the previous working day of the bank (SBI) shall be taken.

10. Ranking (L-1, L-2 etc.) shall be done only for the techno-commercially acceptable offers and on basis of Evaluation of Total Cost to BHEL.

E. INFORMATION ON PAYMENT TERMS:

1. All payments will be through Electronic Fund transfer (EFT). Vendor has to furnish necessary details as per BHEL standard format (**Refer Annexure IV**) for receiving all payments through NEFT.(Applicable for Indian vendors only).
2. In case of High Sea Sales transaction, customs clearance of the consignment landed on Indian Sea/Air ports will be done by BHEL based on the original HSS documents provided by vendors. All warehousing charges due to delay in submission of complete and or correct HSS documents to BHEL will be to supplier's account only. Such recovery will be made out of any of the available bills (**Refer Annexure V**).
3. Statutory deductions, if any, will be made and the deduction certificate shall be

issued.

A. In case vendor does not provide PAN details, the TDS deduction shall be at the maximum percentage stipulated as per the provisions of Income Tax Act.

In addition to the above, Foreign vendors shall also submit relevant details of their bankers like Swift Code, Banker's Name & Address etc.

B. TDS deduction as per section 51 of CGST Act, 2017 shall be applicable as per Gazette Notification No. 50/2018-Central Tax, Dated: 13th September 2018 and subsequent notification/s, as and when released by Govt. authorities.

4. Incomplete documentation will not be accepted. Delayed submission of invoice / documents may result in corresponding delay in payment. In this connection, request to also refer clause: G about invoicing & payment formalities under GST regime. Applicable documents shall be submitted to the purchaser at the time of execution of supplies/services for availing GST input credits.

F. STANDARD PAYMENT TERMS OF BHEL-EDN:

<u>PURCHASE ORDERS FOR:</u>	<u>SUPPLY WITH SERVICE(S)</u>	<u>SUPPLY ONLY</u>
<u>INDIGENOUS PROCUREMENT</u>	a. 80% of basic supply value+100% taxes and freight charges will be paid with 45 days credit from the receipt of material at site or 15 days credit from the date of submission of complete set of documentation whichever is later. b. 10% of basic supply value will be paid on completion of I&C against submission of supplementary invoice with proof of completion of I&C along with I&C charges (if Any) c. Balance 10% (retention money) against submission of supplementary invoice along with PBG valid for Warranty Period+ 3 months claim period from BHEL Consortium Bank d.I&C/Supervision: 100% on completion of I&C/Supervision and certification line item wise on prorata basis with 15 days credit from the date of submission of complete set of documentation e.O&M: 100% O&M Charges are payable as per RFQ terms against report certified by BHEL with 15 days credit from the date of submission of complete set of documentation	f. 100% of PO value with taxes and freight will be paid in 45 days from the date of dispatch or 15 days from the date of submission of complete set of documentation, whichever is later+ submission of PBG valid for warranty period +3 months claim period from BHEL consortium bank if applicable.

	<u>Note:</u> In case PBG is not furnished, only 90% payment will be released against 100% claim without the consent of Vendor. This 10% basic amount withheld towards PBG will be paid either against submission of supplementary invoice & Original PBG (or) against supplementary invoice without PBG after expiry of Warranty period.	
<u>IMPORT PROCUREMENT</u>	g. 80% of basic supply value(excluding I&C charges) will be paid will be paid with 45 days credit against sight draft from the date of AWB/BOL on submission of complete set of documents as n PO. h. 10% of basic supply value will be paid on completion of I&C against submission of supplementary invoice with proof of completion of I&C along with I&C charges (if Any) i. Balance 10% (retention money) against submission of supplementary invoice along with PBG valid for Warranty Period+ 3 months clam period from BHEL Consortium Bank <u>Note:</u> In case PBG is not furnished, only 90% payment will be released against 100% claim without the consent of Vendor. This 10% basic amount withheld towards PBG will be paid either against submission of supplementary invoice & Original PBG (or) against supplementary invoice without PBG after expiry of Warranty period.	j. 100% of PO value will be paid against sight draft with 45 days credit from the date of dispatch or 15 days credit from the date of submission of complete set of documents whichever is later + submission of PBG valid for Warranty period + 3months claim period from BHEL consortium bank if applicable.
<u>HIGH-SEA SALES PROCUREMENT</u>	k. 100% of basic value will be paid in 45 days from the date of signing of High Sea Sale agreement or 15 days from the date of submission of complete set of documentation, whichever is later <u>Note:</u> In case PBG is not furnished, only 90% payment will be released against 100% claim without the consent of Vendor. This 10% basic amount withheld towards PBG will be paid either against submission of supplementary invoice & Original PBG (or) against supplementary invoice without PBG after expiry of Warranty period.	l. 100% of basic value will be paid in 45 days from the date of signing of High Sea Sale agreement or 15 days from the date of submission of complete set of documentation, whichever is later.

1. Erection and Commissioning:

Evaluation methodology: Unless and otherwise specified in SCC, E&C charges should not be less than 10% of the main supply value. In case the quoted total E&C value is less than 10% of the main supply value, BHEL shall evaluate Bidders Price deducting differential amount from main supply price proportionally from all items and apportioning towards E&C charges.

Payment term: 100% E&C charges along with tax as applicable, will be paid in 15 days credit from the date of submission of supplementary invoice/documents against proof of completion of E&C.

2. Erection Supervision and Commissioning:

Evaluation methodology: Unless and otherwise specified in SCC, E&C charges should not be less than 5% of the main supply value. In case the quoted total E&C value is less than 5% of the main supply value, BHEL shall evaluate Bidders Price deducting differential amount from main supply price proportionally from all items and apportioning towards E&C charges.

Payment term: 100% E&C charges along with tax as applicable, will be paid in 15 days from the date of submission of supplementary invoice/documents against proof of completion of E&C.

3. Comprehensive Annual Maintenance Contract:

Evaluation methodology: Unless and otherwise specified in SCC, CAMC will be applicable for a period of 04 years from the date of expiry of warranty period (or) from the date of completion of commissioning of equipment, whichever is later and the total CAMC value should not be less than 20% of the main supply value. In case the quoted total CAMC value is less than 20% of the main supply value, BHEL shall evaluate Bidders Price deducting differential amount from main supply price proportionally from all items and apportioning towards CAMC charges.

Payment terms: 100% CAMC charges along with tax as applicable, will be paid in 15 days from the date of submission of supplementary invoice/documents against proof of completion of CAMC on quarterly basis.

4. Terms of Payment for Training: 100% payment will be made in 45 days from the date of completion of Training or 15 days from the date of submission of complete set of invoice along with documentary evidence, whichever is later.**LOADING FACTORS FOR DEVIATION IN PAYMENT TERMS (APPLICABLE FOR IMPORT PROCUREMENT ONLY):**

- (i) For offers received with Sight draft payment term in place of Usance draft, loading applicable will be 1.0% of basic value.
- (ii) For offers received with Letter of Credit payment term with Usance of 45 days, loading applicable will be 2.5% of basic value.

Additional loading of 2% will be applicable for payment term as Letter of Credit at Sight.

5. Any payment term with credit period of less than 45 days for indigenous supply/HSS and any other variation of payment terms are liable for rejection.
6. Standard payment terms indicated in Clauses: **F (a), (b), (c), (d), (e), (f), (g), (h), (i) & (j) ,(k),(l) will not attract any loading.**

Note 1: Basic value of Purchase Order mentioned above will include all components of the purchase order and will exclude only taxes, duties, freight, training charges, E&C and AMC charges (wherever applicable). Wherever the Purchase Order is split into import portion and indigenous portion of supply, minimum % to be quoted for Services, wherever mentioned, will be of both purchase order values put together.

Note 2: In case of multiple packages/units in a power plant, payment of E&C charges will be processed on pro-rata basis.

Note 3: No deviation will be permitted from the duration of Guarantee/Warranty and/or Comprehensive Annual Maintenance Contract period specified in SCC.

G. Terms & Conditions to be complied under GST regime:

1. All invoices to contain BHEL-EDN (buyer) GSTIN number: 29AAACB4146P1ZB. However, for CGST +SGST/UGST billing outside the state of Karnataka, invoice has to be generated with BHEL's Nodal Agency GSTIN number. Address of Nodal Agency along with GSTIN number will be provided by BHEL at the time of issuing dispatch clearance.
2. The Bidder shall mention Bidder's GSTIN number in all quotations and Invoices submitted.
3. The Bidder shall also mention HSN (Harmonized System of Nomenclature) / SAC (Services Accounting Code) mandatorily in all quotations and invoices submitted.
4. Invoice submitted should be in the format as specified under GST Laws viz., all details as mentioned in Invoice Rules like GST registration number(GSTIN), invoice number with date of issue, quantity, rate, value, taxes with nomenclature – CGST, SGST, UGST, IGST mentioned separately, HSN Code / SAC Code etc. Invoice should be submitted in original for buyer plus duplicate for credit availment.
5. Payment of GST to Vendor will be made only if it is matching with data uploaded by the Vendor in GST portal.
6. For invoices paid on Reverse charge basis – “Tax payable on reverse charge basis” to be mentioned on the invoice.
7. In case GST credit is delayed/denied to BHEL due to non/delayed receipt of goods and/or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount will be recoverable from vendor along with interest levied/ leviable on BHEL.
8. In case vendor delays declaring such invoice in his return and GST credit availed by BHEL is denied or reversed subsequently as per GST law, GST amount paid by BHEL

towards such ITC reversal as per GST law will be recoverable from vendor/contractor along with interest levied/leviable on BHEL.

9. Vendor should intimate BHEL immediately on the same date of invoicing without any delay.
10. In case of discrepancy in the data uploaded by supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note (details to be uploaded in GSTN portal) for the shortages or rejections in the supplies, within the calendar month notified by BHEL.
11. Bidders to note that Rules & Regulations pertaining to E-way bill system are to be strictly adhered to, as and when notified by Govt. authorities.

H. Performance bank guarantee (PBG):

Performance bank guarantee (PBG) will be applicable as called in the tender documents. Unless otherwise specified in the SCC, the PBG against performance of the contract shall be valid for a period of 24 months from the date of dispatch of goods + claim period of 03 months, for a value equal to 10 % of the basic value of the purchase order which will include all components of the purchase order and will exclude only taxes, duties, freight, training charges, E&C and AMC charges (wherever applicable).

1. The BG issued in Indian Rupees by Banks in India is to be executed 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/Bank issuing the guarantee.
2. No deviation for the duration and value of PBG will be permitted.
3. PBG shall be from any of the BHEL consortium of bankers (**refer Annexure VI**).
4. PBGs from nationalized banks are also acceptable.
5. PBG should be sent directly by the bank to the dealing executive mentioned in the purchase order located at the address mentioned in the purchase order.
6. PBG should be in the format specified (**refer Annexure VII**). No deviation to this format will be allowed. However, in case BHEL changes the PBG format, bidder shall honor the same.
7. Bank Guarantee should be enforceable in Bangalore.
8. In Case of Bank Guarantees submitted by Foreign Vendors-
 - a. From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India) can be accepted subject to the condition that the Bank Guarantee should be enforceable in Bangalore.
 - b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor Country's Bank)

b.1 Please note that Bank Guarantee issued by any of the Consortium Banks only will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favor of the Indian Bank's (BHEL's Consortium Bank) branch in India. It shall be noted that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor.

b.2 In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at sl.no. b.1 is required to be followed.

b.3 The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time).

9. Expired PBGs will be returned only after expiry of the claim period.

10. PBG shall not be applicable for spares.

I. PROVISIONS APPLICABLE FOR MSE VENDORS (MICRO AND SMALL ENTERPRISES) :

Benefits/facilities as applicable for Micro and Small Enterprises (MSEs) shall be available to MSEs registered with Government designated authorities as per the Purchase & Price Preference Policy of the Government subject to them becoming eligible otherwise.

Vendors who qualify as MSE vendors are requested to submit applicable certificates (as specified by the Ministry of Micro, Small and Medium Enterprises) at the time of vendor registration. Vendors have to submit the Udyog Aadhaar Memorandum (UAM) /UDYAM Registration certificate along with attested copy of a CA certificate (Annexure VIII) applicable for the relevant financial year (latest audited) along with the tender documents in the Part-I bid to avail the applicable benefits.

Date to be reckoned for determining the deemed validity will be the date of bid opening (Part-I in case of two-part bid and three-part bid).

Documents have to be notarized/attested by a Gazetted officer and must be valid as on the date of part I bid opening for the vendors to be eligible for the benefits applicable for MSE vendors. Please note that no benefit shall be applicable if any deficiency in the above required documents are not submitted before the price bid opening/Reverse Auction. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal.

Bidders to however note the documents that shall be furnished in order to establish credentials as MSE vendor should be as per the extant statutory requirements specified by the Ministry of Micro, Small and Medium Enterprises.

PURCHASE PREFERENCE FOR MSE VENDORS:

MSE vendors quoting within a price band of L1 + 15% shall be allowed to supply up to 25% of the requirement against this tender provided

1. The MSE vendor matches the L1 price.
2. L1 price is from a non MSE vendor.
3. L1 price will be offered to the vendor nearest to L1 in terms of price ranking (L2 - nearest to L1). In case of non-acceptance by the MSE vendor (L2), next ranking

MSE vendor will be offered who is within the L1 + 15% band (if L3 is also within 15% band).

4. 3% of the 25% will be earmarked for women owned MSEs.
5. 25% of the 25% (i.e., 6.25% of the total enquired quantity) will be earmarked for SC/ST owned MSE firms provided conditions as mentioned in (1) & (2) are fulfilled.
6. In case where no SC/ST category firms are meeting the conditions mentioned in (1) and (2) or have not participated in the tender, the 6.25% of earmarked quantity for SC/ST owned MSE firms will be distributed among the other eligible MSE vendors who have participated in the tender.
7. In case after the bid opening it is seen that no MSE has become L1, then depending on the nature of the item, if it is not possible to split the tendered items/quantities on account of reasons like customer contract requirements of supplying one make for a given project or technical reasons like the tendered item being a system etc., then BHEL would not counter offer the L1 prices even though there may be MSE bidders within the +15% band of L1. Such information that tendered quantity will not be split shall be indicated in the SCC.

J. INTEGRITY COMMITMENT IN THE TENDER PROCESS, AND EXECUTION OF CONTRACTS:

1. Commitment by BHEL: BHEL commits to take all measures necessary to prevent corruption in connection with the Tender process and execution of the Contract. BHEL will, during the tender process, treat all bidder / suppliers in a transparent and fair manner, and with equity.
2. Commitment by Bidder(s)/ Contractor(s):
 - a. The Bidder(s)/ Contractor(s) commit(s) to take all measures to prevent corruption and will not directly or indirectly try to influence any decision or benefit which he is not legally entitled to.
 - b. The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding or any actions to restrict competition.
 - c. The Bidder(s)/ Contractor(s) will not commit any offence under the relevant Acts. 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 BHEL as part of business relationship.
 - d. 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 and shall adhere to the relevant guidelines issued from time to time by Government of India/ BHEL.

If the Bidder(s) / Contractor(s), before award or during execution of the Contract commit(s) a transgression of the above or in any other manner such as to put his reliability or credibility in question, BHEL is entitled to disqualify the Bidder(s) / Contractor (s) from the tender process or terminate the contract and/ or take suitable action as deemed fit.

K. Integrity Pact (IP):

- 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.

A panel of independent External Monitors (IEMs) have been appointed to oversee implementation of IP in BHEL.

The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory who signs in the offer) along with techno-commercial 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.

- b) Please refer Section-8 of the IP for Role and Responsibilities of IEMs (Annexure IX). In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.

Note: 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.”

L. Fraud prevention policy:

The Bidder along with its associates/collaborators/sub-contractors/sub-vendors/consultants/service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL Website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice. Fraud prevention policy and List of Nodal Officers shall be hosted on BHEL website, vendor portal of Units/Region intranet.

Annexure

Annexure I
Guidelines for Indian Agents

- **Definition of Indian Agent:** An Indian Agent of foreign principal is an individual, a partnership, an association of persons, a private or public company, that carries out specific obligation(s) towards processing of BHEL tender or finalization or execution of BHEL's contract on behalf of the foreign supplier.

In case of yes, vendor to note the following and reply accordingly:

- BHEL shall deal directly with foreign vendors, wherever required, for procurement of goods. However, if the foreign principal desires to avail of the services of an Indian agent, then the foreign principal should ensure compliance to regulatory guidelines - which require mandatory submission of an Agency Agreement.
- It shall be incumbent on the Indian agent and the foreign principal to adhere to the relevant guidelines of Government of India, issued from time to time.
- The Agency Agreement should specify the precise relationship between the foreign OEM / foreign principal and their Indian agent and their mutual interest in the business. All services to be rendered by agent/ associate, whether of general nature or in relation to the particular contract, must be clearly stated by the foreign supplier/ Indian agent. Any payment, which the agent or associate receives in India or abroad from the OEM, whether as commission or as a general retainer fee should be brought on record in the Agreement and be made explicit in order to ensure compliance to laws of the country.
- Any agency commission to be paid by BHEL to the Indian agent shall be in Indian currency only.
- Tax deduction at source is applicable to the agency commission paid to the Indian agent as per the prevailing rules.
- In the absence of any agency agreement, BHEL shall not deal with any Indian agent (authorized representatives / associate / consultant, or by whatever name called) and shall deal directly with the foreign principal only for all correspondence and business purposes.
- The "Guidelines for Indian Agents of Foreign Suppliers" enclosed at annexure - 'A' shall apply in all such cases.

- viii. The supply and execution of the Purchase Order (including indigenous supplies/ service) shall be in the scope of the OEM/ foreign principal. The OEM/ foreign principal should submit their offer inclusive of all indigenous supplies/ services and evaluation will be based on 'total cost to BHEL'. In case OEM/ foreign principal recommends placement of order(s) towards indigenous portion of supplies/ services on Indian supplier(s)/ agent on their behalf, the credentials/ capacity/ capability of the Indian supplier(s)/ agent to make the supplies/ services shall be checked by BHEL as per the extant guidelines of Supplier Evaluation, Approval & Review Procedure (SEARP), before opening of price bids. In this regard, details may be checked as per Annexure-B (copy enclosed). It will be the responsibility of the OEM/ foreign principal to get acquainted with the evaluation requirements of Indian supplier/ agent as per SEARP available on www.bhel.com.

The responsibility for successful execution of the contract (including indigenous supplies/ services) lies with the OEM/ foreign principal. All bank guarantees to this effect shall be in the scope of the OEM/ foreign principal.

—X—

Vendor's Signature with Seal

Guidelines for Indian Agents of Foreign Suppliers

- 1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with BHEL shall apply for registration in the registration form in line with SEARP.
- 1.1 Registered agents will file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the Principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/ remuneration/ salary/ retainership being paid by the principal to the agent before the placement of order by BHEL.
- 1.2 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.
- 2.0 **Disclosure of particulars of agents/ representatives in India, if any.**
- 2.1 Tenderers of Foreign nationality shall furnish the following details in their offers:
 - 2.1.1 The Bidder(s)/ Contractor(s) of foreign origin shall disclose the name and address of the agents/ representatives in India if any and the extent of authorization and authority given to commit the Principals. In case the agent/ representative be a foreign Company, it shall be confirmed whether it is existing Company and details of the same shall be furnished.
 - 2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.
 - 2.1.3 Confirmation of the Tenderer that the commission/ remuneration, if any, payable to his agents/ representatives in India, may be paid by BHEL in Indian Rupees only.
- 2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:
 - 2.2.1 The Bidder(s)/ Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any, indicating their nationality as well as their status, i.e. whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/ representatives.
 - 2.2.2 The amount of commission/ remuneration included in the price (s) quoted by the Tenderer for himself.
 - 2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/ remuneration, if any, reserved for the Tenderer in the quoted price(s), may be paid by BHEL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items.
- 2.3 In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission/ remuneration, if any payable to the agents/ representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
- 2.4 Failure to furnish correct and detailed information as called for in paragraph 2.0 above will render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by BHEL. Besides this there would be a penalty of banning business dealings with BHEL or damage or payment of a named sum.

ANNEXURE - II
LIST OF INTERNATIONAL GATEWAY AIRPORTS

For air based consignment, terms of delivery will be on FCA basis from following listed airports only. Vendors are requested to verify this list for use before submission of offer.

SCHEDULE NO	COUNTRY	CURRENCY CODE	AIRPORT
D01	UK	GBP	LONDON (HEATHROW)
D02	UK	GBP	NEW CASTLE
D03	UK	GBP	OXFORD. CHETLAM
D04	UK	GBP	BRISTOL. WELLINGBOROUGH
D05	UK	GBP	BIRMINGHAM
D06	UK	GBP	EAST MIDLANDS
D07	UK	GBP	MANCHESTER
D08	UK	GBP	LEEDS
D09	UK	GBP	GLASGOW
D10	FRANCE	EURO	PARIS (ROISSY) & LYON
D11	SWEDEN	EURO	STOCKHOLM
D12	SWEDEN	EURO	GOTHENBERG & MALMO
D13	ITALY	EURO	ROMA, MILAN
D14	ITALY	EURO	TURIN, BOLOGNA, FLORENCE
D15	NETHERLANDS	EURO	AMSTERDAM, ROTTERDAM
D16	AUSTRIA	EURO	VIENNA, LINZ, GRAZ
D17	BELGIUM	EURO	ANTWERP, BRUSSELS
D18	DENMARK	DKK	COPENHAGEN
D19	JAPAN	JPY	TOKYO, OSAKA
D20	SINGAPORE	SGD	SINGAPORE
D21	CANADA	CAD	TORONTO
D22	CANADA	CAD	MONTREAL
D23	USA	USD	NEW YORK, BOSTON
D24	USA	USD	CHICAGO
D25	USA	USD	SAN FRANCISCO, LOS ANGELES
D26	USA	USD	ALANTA, HOUSTON
D27	GERMANY	EURO	MUNICH, KOLN, DUSSELDORF, HANNOVER, HAMBURG, STUTTGART, DAMSTADT, MANIHIEM, NURUMBERG
D28	GERMANY	EURO	FRANKFURT
D29	GERMANY	EURO	BERLIN
D30	SWITZERLAND	SFR	BASLE, ZURICH, GENEVA
D31	SPAIN	EURO	BARCELONA
D32	AUSTRALIA	AUD	SYDNEY
D33	AUSTRALIA	AUD	MELBOURNE
D34	AUSTRALIA	AUD	PERTH
D35	CZECH	EURO	PRAGUE
D36	HONG KONG	HKD	HONG KONG
D37	NEW ZELAND	NZD	AUCKLAND
D38	RUSSIA	USD	MOSCOW
D39	SOUTH KOREA	USD	KIMPO INTERNATIONAL, INCHEON
D40	FINLAND	EURO	HELSINKI
D41	ROMANIA	EURO	BUCHAREST
D42	NORWAY	EURO	OSLO
D43	IRELAND	EURO	DUBLIN
D44	ISRAEL	USD	TEL AVIV
D45	UAE	USD	DUBAI
D46	OMAN	USD	MUSCAT
D47	EGYPT	USD	CAIRO
D48	TAIWAN	USD	TAIPEI
D49	UKRAINE	USD	KIEV
D50	CHINA	USD	SHANGHAI, SHENZHEN
D51	PHILIPINES	USD	MANILA
D52	MALAYSIA	USD	KUALALUMPUR, PE NANG
D53	CYPRUS	USD	LARNACA
D54	SOUTH AFRICA	USD	JOHANNESBERG, DURBAN
D55	SLOVAKIA	EURO	BARTISLOVA
D56	SAUDI ARABIA	SAR	RIYADH
D57	TURKEY	EURO	ISTANBUL
D58	THAILAND	USD	BANGKOK
D59	BRAZIL	USD	SAO PAULO, RIO DE JANEIRO

ANNEXURE – III

DISCREPANCY IN WORDS & FIGURES – QUOTED IN PRICE BID

Following guidelines will be followed in case of discrepancy in words & figures-quoted in price bid:

(a) If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.

(b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

(d) If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

ANNEXURE - IV
Electronic Funds Transfer (EFT) OR
Paylink Direct Credit Form

Please Fill up the form in **CAPITAL LETTERS** only.

TYPE OF REQUEST(Tick one): ☐ CREATE ☐ CHANGE

BHEL Vendor / Supplier Code:

Company Name :

Permanent Account Number(PAN):

Address

City:

PINCODE

STATE

Contact Person(s)

Telephone No:

Fax No:

e-mail id:

1 Bank Name:

2 Bank Address:

3 Bank Telephone No:

4 Bank Account No:

5 Account Type: Savings/Cash Credit

6 9 Digit Code Number of Bank and branch

appearing on MICR cheque issued by Bank

7 Bank IFSC Code(applicable for NEFT)

8 Bank IFSC code(applicable for RTGS)

(Indian Financial System Code)

- A I hereby certify that the particulars given above are true, correct and complete and that I, as a representative for the above named Company, hereby authorise BHEL, EDN, Bangalore to electronically deposit payments to the designated bank account.
- B If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold BHEL / transferring Bank responsible.
- C This authority remains in full force until BHEL, EDN, Bangalore receives written notification requesting a change or cancellation.
- D I have read the contents of the covering letter and agree to discharge the responsibility expected of me as a participant under ECS / EFT.

Date:

Authorised Signatory:

Designation:

Telephone No. with STD Code

Company Seal

Bank Certificate

We certify that _____ has an Account No _____ with us and we confirm that the bank details given above are correct as per our records.

Date:

(.....)

Place:

Signature

Please return completed form along with a blank cancelled cheque or photocopy thereof to:

Bharath Heavy Electricals Ltd,

Attn:

Electronics Division, Mysore Road,

BANGALORE - 560 026

In case of any Query, please call concerned purchase executive.

ANNEXURE - V
PRESENT PROCEDURE FOR SALE IN TRANSIT (HIGH SEA SALES)

In case of High Sea Sales, vendor should submit following documents:

1. ORIGINAL HIGH SEA SALES AGREEMENT

- Sale agreement (on Rs. 200/- non-judicial stamp paper & notarised with 2 witnesses with identity) has to be signed between BHEL and the Party importing material. The date of the sale documents should be in between the date of House Air Way Bill / Bill of Lading and before landing of the goods in Indian origin.
- Following shall be included in the High Sea Sales Agreement:
"THE BUYER ALSO UNDERTAKE DISCHARGES, THE OBLIGATION AND FULFILLMENT OF CONDITIONS, IF ANY, ATTACHED TO THE IMPORTATION, ASSESSMENT AND CLEARANCE OF THE GOODS IN TERMS CUSTOMS TARIFF ACT 1975, THE CUSTOMS ACT 1962 & RULES & REGULATIONS MADE THERE UNDER AND OTHER RELEVANT ACTS, ORDERS, NOTIFICATIONS".

2. ORIGINAL INVOICES: INDIGENOUS RUPEE INVOICE & FOREIGN CURRENCY INVOICE

- Prices should be C.I.F., designated airport/seaport basis.
- I.E.C., C.S.T., K.S.T. Nos. to be mentioned.
- Description of item (Nomenclature), Unit & Quantity in both the Foreign Currency & the Indigenous Invoice in Rupee shall be exactly as per Purchase Order Description of item, Quantity and Unit. The Indigenous Invoice value shall be exactly as per Purchase Order value.
- Seller should give Foreign Currency Invoice from the original consignor. The Foreign Currency Invoice value should be at least 2% (two per cent) less than the Indigenous Rupee Invoice value in equivalent foreign currency.

4. ORIGINAL HOUSE AIR WAY BILL/ BILL OF LADING

- The sale agents should duly endorse House Air Way Bill (HAWB) for air shipments or original Bill of Lading (O.B.L.) for sea shipments and Foreign Currency Invoice in favour of BHEL-EDN.

5. ORIGINAL CARGO ARRIVAL NOTICE FROM FORWARDER.

6. ORIGINAL DELIVERY ORDER ISSUED IN NAME OF BHEL-EDN.

7. ORIGINAL PACKING LIST.

8. A LETTER TO THE COMMISSIONER OF CUSTOMS FOR EFFECTING ABOVE SALE.

9. A LETTER TO THE DEPUTY ASSESSOR (OCTROI) FOR EFFECTING ABOVE SALE IN FAVOUR OF BHEL.

REMARKS: In case vendor needs any clarifications on the above, the same may be sought in writing.



ELECTRONICS DIVISION, BANGALORE

Annexure-VI

BHEL MEMBER BANKS (LIST OF CONSORTIUM BANKS)

Bank Guarantee (BG) shall be issued from the following banks only:

Sl. No.	Nationalised Banks	Sl. No.	Public Sector Banks
1	Allahabad Bank	18	IDBI
2	Andhra Bank		
3	Bank of Baroda	Sl. No.	Foreign Banks
4	Canara Bank	19	CITI Bank N.A
5	Corporation Bank	20	Deutsche Bank AG
6	Central Bank	21	The Hongkong and Shanghai Banking Corporation Ltd. (HSBC)
7	Indian Bank	22	Standard Chartered Bank
8	Indian Overseas Bank	23	J P Morgan
9	Oriental Bank of Commerce		
10	Punjab National Bank	Sl. No.	Private Banks
11	Punjab & Sindh Bank	24	Axis Bank
12	State Bank of India	25	The Federal Bank Limited
13	Syndicate Bank	26	HDFC Bank
14	UCO Bank	27	Kotak Mahindra Bank Ltd
15	Union Bank of India	28	ICICI Bank
16	United Bank of India	29	IndusInd Bank
17	Vijaya Bank	30	Yes Bank

Note:

- All BGs must be issued from BHEL consortium banks listed above.
- This list is subject to changes. Hence vendors are requested to check this list every time before issuing BGs.
- Bank Guarantees issued by Co-operative Banks/Financial Institutions cannot be accepted under any circumstance.

Annexure-VII

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 _____¹ through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) with its registered office at _____² 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.....dated³ valued at Rs.....⁴ (Rupees -----)/FC.....(in words.....) for⁵ (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 --⁶ (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.....⁷ 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 the⁸we shall be discharged from all liabilities under this guarantee thereafter.

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.....⁶
- b) This Guarantee shall be valid up to⁷
- c) Unless the Bank is served a written claim or demand on or before⁸ 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

Annexure – VIII
(Applicable only for MSE Suppliers)

Certificate by Chartered Accountant on letterhead

This is to certify that M/s. _____
(hereinafter referred to as 'enterprise') having P A N Number _____ and
UDYAM Registration Number _____, registered office at
_____ is falling under the
category _____ (**Micro / Small / Medium**) under MSMED Act 2006. (Copy of UDYAM
Registration Certificate to be enclosed).

The said classification of _____ (**Micro / Small / Medium**) is arrived at based on the
Notifications / guidelines / clarifications issued under Micro, Small and Medium Enterprises
Development Act, 2006 including the notification S.O.2119 (E) dated 26th June 2020.

The Investment of the enterprise in Plant and Machinery or Equipment as at 31st
March'2020 as per Clause - 4 of the Notification is _____ (Rupees in Lakhs).

The turnover of the Enterprise for the period ending 31st March 2020 as per Clause - 5 of
the Notification is _____ (Rupees in Lakhs).

Date:

(Signature) Name-
Membership number-

Seal of Chartered Accountant with UDIN reference

Annexure-X

Restrictions under Rule 144(xi) of General Financial Rules, 2017 amendment dt: 23.07.2020

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means :-
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose *beneficial owner* is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The *beneficial owner* for the purpose of (iii) above will be as under:
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation--

 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company;
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.



ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
भारत हेवी इलेक्ट्रिकल्स लिमिटेड



Bharat Heavy Electricals Limited

(A Government of India Undertaking)

ELECTRONICS DIVISION

P. B. No. 2606, Mysore Road, Bengaluru - 560 026

SCPV: BOS: GCC- Rev 04

GENERAL COMMERCIAL CONDITIONS FOR CONTRACT

These 'General Commercial Conditions for Contract for Purchase' herein after referred to as GCC apply to all enquiries, tenders, requests for quotations, orders, contracts and agreements concerning the supply of goods and the rendering of related services (hereinafter referred to as "deliveries") to Bharat Heavy Electricals Limited and any of its units, regions or divisions (hereinafter referred to as "BHEL" or the Purchaser) or its projects/ customers.

Any deviations from or additions to these GCC require BHEL's express written consent. **The general terms of business or sale of the vendor shall not apply to BHEL.** Acceptance, receipt of shipments or services or effecting payment shall not mean that the general terms of business or sale of the vendor have been accepted.

Orders, agreements and amendments thereto shall be binding if made or confirmed by BHEL in writing. Only the Purchasing department of BHEL is authorized to issue the Purchase Order or any amendment thereof.

Definitions:

Throughout these conditions and in the specifications, the following terms shall have the meanings assigned to them, unless the subject matter or the context requires otherwise.

- (a) 'The Purchaser' means Bharat Heavy Electricals Limited, Electronics division, Mysore road, Bangalore 560 026, a Unit of Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the Companies Act having its registered office at BHEL House, Siri Fort, New Delhi-110049, India and shall be deemed to include its successors and assigns. It may also be referred to as BHEL.
- (b) 'The vendor' means the person, firm, company or organization on whom the Purchase Order is placed and shall be deemed to include the vendor's successors, representative heirs, executors and administrator as the case may be. It may also be referred to as Seller, Contractor or Supplier.
- (c) 'Contract' shall mean and include the Purchase Order incorporating various agreements, viz. tender/ RFQ, offer, letter of intent/acceptance/ award, the General Conditions of Contract and Special Conditions of Contract for Purchase, Specifications, Inspection/ Quality Plan, Schedule of Prices and Quantities, Drawings, if any enclosed or to be provided by BHEL or his authorized nominee and the samples or patterns if any to be provided under the provisions of the contract.

- (d) 'Parties to the Contract' shall mean the 'The Vendor' and the Purchaser as named in the main body of the Purchase Order.

Order of Precedence:

In case of any inconsistency or contradiction between any of the documents, the order of precedence shall be Purchase Order, LOI / LOA, Special Conditions of Contract and General Conditions of Contract for commercial conditions; and specific agreement on technical conditions, RFQ/offer and specification for Technical Conditions.

Interpretation:

In the contract, except where the context requires otherwise:

- (a) Words indicating one gender include all genders;
- (b) Words indicating the singular also include the plural and words indicating the plural also include the singular;
- (c) Provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing, and
- (d) "Written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record.

APPLICABLE CONDITIONS:

1. **Price Basis:** All prices shall be firm until the purchase order is executed / completed in all respects. No price variations / escalation shall be permitted, unless otherwise such variations/ escalations are permitted for and agreed up on by BHEL in writing in the PO. In case Price variation/ Exchange rate variation clause if applicable, the same will be mentioned in Special Conditions of Contract (SCC), otherwise firm price only.
2. **Ordering and confirmation of Order:** Vendor shall send the order acceptance on their company letter head/ through e-mail within 1 (ONE) week from the date of receipt of Purchase Order or such other period as specified/ agreed by BHEL. BHEL reserves the right to revoke the order placed if the order confirmation differs from the original order placed. The acceptance of goods/services/supplies by BHEL as well as payments made in this regard shall not imply acceptance of any deviations.

The purchase order will be deemed to have been accepted if no communication to the contrary is received within 1 (ONE) week (or the time limit as specified/agreed by BHEL) from the date of receipt of the purchase order.

3. **Documentation:** After receipt of Purchase Order, vendor should submit necessary documents (if & as applicable) like drawings specified, bill of materials, datasheets, catalogues, quality plan, test procedure, type test report, O & M Manuals and/or any other relevant documents as per Specification/Purchase Order, as and when required by BHEL/Customer.

At any stage within the contract period, the vendor shall notify of any error, fault or other defect found in BHEL's documents /specifications or any other items for reference. If and to the extent that (taking account of cost and time) any vendor exercising due care would have discovered the error, fault or other defect when examining the documents/specifications before submitting the tender, the time for completion shall not be extended. However, if errors, omissions, ambiguities,

inconsistencies, inadequacies or other defects are found in the vendor's documents, they shall be corrected at his cost, notwithstanding any consent or approval.

4. Penalty:

For delay in delivery: In the event of delay in agreed contractual delivery as per Purchase Order, penalty @ 0.5 % (half percent) per week or part thereof but limited to a max of 10% (ten percent) value of undelivered portion (basic material cost) will be applicable. Delivery will commence from the date of issue of Manufacturing clearance along with approved document. The date for which Inspection call is issued by vendor along with test certificates / test reports /Certificate of Conformance / calibration reports, as proof of completion of manufacturing will be treated as date of deemed delivery for penalty calculation. In the absence of furnishing such document indicated above as proof of completion of manufacturing along with inspection call, actual date of inspection will be considered as date of deemed delivery and BHEL will not be responsible for delay in actual date of inspection.

Penalty for delayed delivery if applicable, shall be deducted at the time of first supply payment.

If penalty is applicable for duration of less than a week, penalty @ 0.5% (half percent) of the basic material value will be deducted. **GST as applicable will be recovered along with penalty amount.**

- 5. Contract variations (Increase or decrease in the scope of supply):** BHEL may vary the contracted scope as per requirements at site. If vendor is of the opinion that the variation has an effect on the agreed price or delivery period, BHEL shall be informed of this immediately in writing along with technical details. Where unit rates are available in the Contract, the same shall be the basis for such additional work. Vendor shall not perform additional work before BHEL has issued written instructions/ amendment to the Purchase Order to that effect. The work which the vendor should have or could have anticipated in terms of delivering the service(s) and functionality (i.e.) as described in this agreement, or which is considered to be the result of an attributable error on the vendor's part, shall not be considered additional work.
- 6. Pre Shipment Inspection:** Prior written notice of at least 10 days shall be given along with internal test certificates/Certificate of Conformance (COC) and applicable test certificates. Materials will be inspected by BHEL-EDN-QS/CQS or BHEL nominated Third Party Inspection Agency (TPIA) or BHEL authorized Inspection Agency or Customer / Consultant or jointly by BHEL & Customer / consultant. All tests have to be conducted as applicable in line with approved Quality plan or QA Checklist or Purchase specification and original reports shall be furnished to BHEL-EDN, Bangalore for verification/acceptance for issue of dispatch clearance. **BHEL reserves the right for conducting repeat test, if required.**

All costs related to inspections & re-inspections shall be borne by vendor. Whether the Contract provides for tests on the premises of the vendor or any of his Sub-contractor/s, vendor shall be responsible to provide such assistance, labour, materials, electricity, fuels, stores, apparatus, instruments as may be required and as may be reasonably demanded to carry out such tests efficiently. Cost of any type test or such

other special tests shall be borne by BHEL only if specifically agreed to in the purchase order.

7. **Transit Insurance:** Transit insurance coverage between vendor's works and project site shall be to the account of BHEL, unless specifically agreed otherwise. However, vendor shall send intimation directly to insurance agency (*as mentioned in dispatch instructions issued by BHEL*) through fax/courier/e-mail, immediately on dispatch of goods for covering insurance. A copy of such intimation sent by vendor to insurance agency shall be given to BHEL along with dispatch documents (*Email communication to Insurance Agency must be "CC" to BHEL*). Dispatch documents will be treated as incomplete without such intimation copy. BHEL shall not be responsible for sending intimations to insurance agency on behalf of the vendor.

8. **Mode of dispatch:**

Indigenous Scope: By road on Door Delivery Consignee Copy attached basis through your approved transporter (unless otherwise indicated in Dispatch Instructions), only on receipt of Despatch Clearance from BHEL.

Imported Scope: By Air/Sea through BHEL approved Freight Forwarder/supplier approved Consolidator respectively as per agreed contractual terms, only on receipt of Dispatch Clearance from BHEL.

9. **Changes in Statutory levies:**

If any rates of Tax are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the execution of Contract, which was or will be assessed on the bidder in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition to the Contract Price or deduction there from, as the case may be. However, these adjustments would be restricted to direct transactions between BHEL and the bidder /agent of foreign bidder (if applicable). These adjustments shall not be applicable on procurement of raw materials, intermediary components etc. by the bidder /agent.

10. **Availing duty/tax exemption benefits by bidder, wherever applicable:** BHEL shall issue the required Certificate/s, as per relevant policies of the Govt. of India, to facilitate the bidders to avail any such benefits under the Contract. In case of failure of the bidders to receive the benefits partly or fully from the Govt. of India and/or in case of any delay in receipt of such benefits, BHEL shall neither be liable nor responsible in any manner whatsoever.

11. **Taxes against sub-vendor dispatches:** All taxes/levies, as applicable in respect of all components, equipment and material to be dispatched directly from the sub-vendor's works to Site irrespective of the fact whether such taxes and levies are assessable and chargeable on Vendor or the BHEL, shall be to the vendor's account and no separate claim in this regard will be entertained by BHEL.

12. **High Sea Sales (HSS):** Customs clearance of the consignment landed on Indian Sea/Air ports will be done by BHEL based on the original HSS documents provided by vendors.

Any delay in submission of complete/correct HSS documents to BHEL may incur demurrage charges. All demurrage charges on account of incomplete /incorrect HSS

documents submission by vendor will be to vendor's account and all such charges will be recovered from any of the available vendor bills with BHEL.

13. **Packaging and dispatch:** The Seller shall package the goods safely and carefully and pack them suitably in all respects considering the peculiarity of the material for normal safe transport by Sea/ Air / Rail/ Road to its destination suitably protected against loss, damage, corrosion in transit and the effect of tropical salt laden atmosphere. The packages shall be provided with fixtures/ hooks and sling marks as may be required for easy and safe handling. If any consignment needs special handling instruction, the same shall be clearly marked with standard symbols / instructions. Hazardous material should be notified as such and their packing, transportation and other protection must conform to relevant regulations.

The packing, shipping, storage and processing of the goods must comply with the prevailing legislation and regulations concerning safety, the environment and working conditions. Any Imported/Physical Exports items packed with raw/ solid wood packing material should be treated as per ISPM – 15 (fumigation) and accompanied by Phytosanitary / Fumigation certificate. If safety information sheets (MSDS – Material Safety Data Sheet) exist for an item or the packaging, vendor must provide this information without fail along with the consignment.

Each package must be marked with Consignee name, Purchase order number, Package number, Gross weight and net weight, dimensions (L x B x H) and Seller's name. Packing list of goods inside each package with PO item number and quantity must also be fixed securely outside the box to indicate the contents of each box. Total number of packages in the consignment must also be indicated in the packing list.

Separate packing & identification of items should be as follows.

- (a) Main Scope - All items must be tagged with part no. & item description.
- (b) Commissioning accessories/spares - All items must be tagged with part no. & item description.
- (c) Mandatory spares - All items must be tagged with part no. & item description.

Nevertheless, vendor shall adhere to dispatch & packing instructions issued by BHEL at the time of dispatch. Approximate Package Dimension shall be indicated in Offer/Quotation ____L (ft) x ____B (ft) x ____H (ft). Any Over Dimensional Consignment (ODC) in any consignment dimension ____40__L (ft) x ____8__B (ft) x ____8__H (ft) the same shall be indicated in offer.

14. **Assignment of Rights & Obligations; Subcontracting:** Vendor is not permitted to subcontract the delivery or any part thereof to third party or to assign the rights and obligations resulting from this agreement in whole or in part to third parties without prior written permission from BHEL. Any permission or approval given by the BHEL shall, however, not absolve the vendor of the responsibility of his obligations under the Contract.
15. **Progress report:** Vendor shall render such report as to the progress of work and in such form as may be called for by the concerned purchase officer from time to time. The submission and acceptance of such reports shall not prejudice the rights of BHEL in any manner.

16. **Non-disclosure and Information Obligations:** Vendor shall provide with all necessary information pertaining to the goods as it could be of importance to BHEL. Vendor shall not reveal any specified confidential information that may be divulged by BHEL to Vendor's employees not involved with the tender/ contract & its execution and delivery or to third parties, unless BHEL has agreed to this in writing beforehand. Vendor shall not be entitled to use the BHEL name in advertisements and other commercial publications without prior written permission from BHEL.

17. **Cancellation /Termination of contract:** BHEL shall have the right to completely or partially terminate the agreement by means of written notice to that effect. Termination of the Contract, for whatever reason, shall be without prejudice to the rights of the parties accrued under the Contract up to the time of termination.

BHEL shall have the right to cancel/foreclose the Order/ Contract, wholly or in part, in case it is constrained to do so on account of any decline, diminution, curtailment or stoppage of the business.

18. **Risk Purchase Clause:** In case of failure of supplier, BHEL at its discretion may make purchase of the materials / services not supplied / rendered in time at the RISK & COST of the supplier. Under such situation, the supplier who fails to supply the goods in time shall be wholly liable to make good to BHEL any loss due to risk purchase.

In case of items demanding services at site like erection and commissioning, vendor should send his servicemen/representatives within 7 days from the service call. In case a vendor fails to attend to the service call, BHEL at its discretion may also make arrangements to attend such service by other parties at the **RISK & COST** of the supplier. Under such situation the supplier who fails to attend the service shall be wholly liable to make good to BHEL any loss due to risk purchase/service including additional handling charges due to the change.

19. **Shortages:** In the event of shortage on receipt of goods and/or on opening of packages at site, all such shortages, *caused by supplier's act or omission*, shall be made good at *free of cost* within a reasonable time that BHEL may allow from such intimation.

Transit Damages: In the event of receipt of goods in damaged condition or having found them so upon opening of packages at site, supplier shall make good of all such damages within a reasonable time from such intimation by BHEL. *In case BHEL raises an insurance claim, the cost of material limited to insurance settled amount less handling charges will be reimbursed to supplier.*

20. **Remedial work:** Notwithstanding any previous test or certification, BHEL may instruct the vendor to remove and replace materials/goods or remove and re-execute works/services which are not in accordance with the purchase order. Similarly, BHEL may ask the vendor to supply materials or to execute any services which are urgently required for any safety reasons, whether arising out of or because of an accident, unforeseeable event or otherwise. In such an event, Vendor shall provide such services within a reasonable time as specified by BHEL.

21. **Indemnity Clause:** Vendor shall comply with all applicable safety regulations and take care for the safety of all persons involved. Vendor is fully responsible for the safety of its personnel or that of his subcontractor's men / property, during execution of the

Purchase Order and related services. All statutory payments including PF, ESI or other related charges have to be borne by the vendor. Vendor is fully responsible for ensuring that all legal compliances are followed in course of such employment.

22. **Product Information, Drawings and Documents:** All specified drawings, technical documents or other technical information received by Vendor from BHEL or vice versa shall not, without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the Disclosing party, otherwise be used or copied, reproduced, transmitted or communicated to third parties. All information and data contained in general product documentation, whether in electronic or any other form, are binding only to the extent that they are by reference expressly included in the contract.

Vendor, as per agreed date/s but not later than the date of delivery, provide free of charge information and drawings which are necessary to permit and enable BHEL to erect, commission, operate and maintain the product. Such information and drawings shall be supplied in as many numbers of copies as may be agreed upon.

All intellectual properties, including designs, drawings and product information etc. exchanged during the formation and execution of the Contract shall continue to be the property of the disclosing party.

23. **Intellectual Property Rights, Licenses:** If any Patent, design, Trade mark or any other intellectual property rights apply to the delivery (goods/related service) or accompanying documentation shall be the exclusive property of the Vendor and BHEL shall be entitled to the legal use thereof free of charge by means of a nonexclusive, worldwide, perpetual license. All intellectual property rights that arise during the execution of the Purchase Order/ contract for delivery by vendor and/or by its employees or third parties involved by the vendor for performance of the agreement shall belong to BHEL. Vendor shall perform everything necessary to obtain or establish the above mentioned rights. The Vendor guarantees that the delivery does not infringe on any of the intellectual property rights of third parties. The Vendor shall do everything necessary to obtain or establish the alternate acceptable arrangement pending resolution of any (alleged) claims by third parties. The Vendor shall indemnify BHEL against any (alleged) claims by third parties in this regard and shall reimburse BHEL for any damages suffered as a result thereof.

24. **Force Majeure:** Notwithstanding anything contained in the purchase order or any other document relevant thereto, neither party shall be liable for any failure or delay in performance to the extent said failures or delays are caused by the "Act of God" and occurring without its fault or negligence, provided that, force majeure will apply only if the failure to perform could not be avoided by the exercise of due care and vendor doing everything reasonably possible to resume its performance.

A party affected by an event of force majeure which may include fire, tempest, floods, earthquake, riot, war, damage by aircraft etc., shall give the other party written notice, with full details as soon as possible and in any event not later than seven (7) calendar days of the occurrence of the cause relied upon. If force majeure applies, dates by which performance obligations are scheduled to be met will be extended for a period of time equal to the time lost due to any delay so caused.

Notwithstanding above provisions, in an event of Force Majeure, BHEL reserves for itself the right to cancel the order/ contract, wholly or partly, in order to meet the overall project schedule and make alternative arrangements for completion of deliveries and other schedules.

25. Warranty:

Wherever required, and so provided in the specifications/ Purchaser Order, the Seller shall ensure that the goods supplied shall comply with the specifications laid down, for materials, workmanship and performance.

If the vendor fails to take proper corrective action to repair/replace defects satisfactorily within a reasonable period, Purchaser shall be free to take corrective action as may be deemed necessary at Vendor's Risk and Cost after giving notice to Vendor, including arranging supply of goods from elsewhere at sole risk and cost of Vendor.

Unless otherwise specified in SCC, warranty period shall be applicable for a period of 24 months from the date of delivery of goods or 18 months from the date of commissioning of goods, whichever is earlier. The warranty period as described above shall apply afresh to replaced, repaired or re-executed parts of a delivery. Unless otherwise specifically provided in the Purchase Order, Vendor's liability shall be co terminus with the expiration of the applicable warranty period.

26. Limitation of Liability: Vendor's liability towards this contract is limited to a maximum of 100% of the contract value and consequential damages are excluded. However, the limits of liability will have no effect in cases of criminal negligence or willful misconduct.

The total liability of Vendor for all claims arising out of or relating to the performance or breach of the Contract or use of any Products or Services or any order shall not exceed the total Contract price.

27. Liability during Warranty: Vendor shall arrange replacement / repair of all the defective materials / services under its obligation during the warranty period. The rejected goods shall be taken away by vendor and replaced / repaired. In the event of the vendor's failure to comply, BHEL may take appropriate action including disposal of rejections and replenishment by any other sources at the cost and risk of the vendor. In case, defects attributable to vendor are detected during Warranty period or where the commissioning call is issued within the warranty period, vendor shall be responsible for replacement/ repair of the goods as required by BHEL at vendor's cost even after expiry of warranty period.

Further if the equipment or any part thereof cannot be used by reason of such defect and/or making good of such defect, the warranty period of the equipment or such part, as the case may be, shall be extended by a period equal to the period during which the equipment or such part cannot be used by BHEL because of any of the aforesaid reasons. Upon correction of the defects in the facilities or any part thereof by repair/replacement, such repair/replacement shall have the warranty period for a

period of twelve (12) months from the time such replacement/repair of the equipment or any part thereof has been completed.

28. **Liability after warranty period:** At the end of the warranty, the Vendor's liability ceases except for latent defects. For the purpose of this clause, latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the warranty Period, but later. The Contractor's liability for latent defects warranty for the equipment including spares shall be limited to a period of six months from the end of the warranty period of the respective equipment including spares or first time commissioning, whichever is later but not later than one (01) year from the date of expiry of warranty period.
29. **Compliance with Laws:** Vendor shall, in performing the contract, comply with all applicable laws. The vendor shall make all remittances, give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the laws in relation to the execution and completion of the contract and for remedying of any defects; and the Contractor shall indemnify and hold BHEL harmless against and from the consequences of any failure to do so.
30. **Settlement of Disputes:** Except as otherwise specifically provided in the Purchase Order, decision of BHEL shall be binding on the vendor with respect to all questions relating to the interpretation or meaning of the terms and conditions and instructions herein before mentioned and as to the completion of supplies/work/services, other questions, claim, right, matter or things whatsoever in any way arising out of or relating to the contract, instructions, orders or these conditions or otherwise concerning the supply or the execution or failure to execute the order, whether arising during the schedule of supply/work or after the completion or abandonment thereof. Any disputes or differences among the parties shall to the extent possible be settled amicably between the parties thereto, failing which the disputed issues shall be settled through arbitration. Vendor shall continue to perform the contract, pending settlement of dispute(s).
31. **Arbitration Clause in case of Contract with vendors other than Public Sector Enterprise (PSE) or a Government Department:**

ARBITRATION & CONCILIATION

The parties shall attempt to settle any disputes 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, or in connection with this contract through friendly discussions. In case no amicable settlement can be reached between the parties through such discussions, in respect of any dispute; then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration of an arbitrator appointed by Head of the BHEL-EDN. Such Sole Arbitrator appointed, shall conduct the arbitration in English language.

The Arbitrator shall pass a reasoned award and the award of the Arbitration shall be final and binding upon the Parties.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or 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 Bangalore. The cost of arbitration shall be borne as decided by the Arbitrator upon him entering the reference. Subject to the Arbitration Clause as above, the Courts at Bangalore alone shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.

Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the parties shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and efficiency in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.

Arbitration Clause in case of Contract with a Public Sector Enterprise (PSE) or a Government Department:

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 by either party for Arbitration to the Sole Arbitrator 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. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.'

32. **Applicable Laws and Jurisdiction of Courts:** Prevailing Indian laws both substantive and procedural, including modifications thereto, shall govern the Contract. Subject to the conditions as aforesaid, the competent courts in Bangalore alone shall have jurisdiction to consider over any matters touching upon this contract.
33. **General Terms:** That any non-exercise, forbearance or omission of any of the powers conferred on BHEL and /or any of its authorities will not in any manner constitute waiver of the conditions hereto contained in these presents.

That the headings used in this agreement are for convenience of reference only.

That all notices etc., to be given under the Purchase order shall be in writing, type script or printed and if sent by registered post or by courier service to the address given in this document shall be deemed to have been served on the date when in the ordinary course, they would have been delivered to the addressee.

Certificate by Chartered Accountant on letterhead

This is to certify that M/s _____
(hereinafter referred to as 'enterprise') having P A N N u m b e r _____ and
UDYAM Registration Number _____, registered office at _____
_____ is falling under the category
_____ (Micro / Small / Medium) under MSMED Act 2006. (Copy of UDYAM Registration
Certificate to be enclosed).

The said classification of _____ (Micro / Small / Medium) is arrived at based on the
Notifications / guidelines / clarifications issued under Micro, Small and Medium Enterprises
Development Act, 2006 including the notification S.O.2119 (E) dated 26th June 2020.

The Investment of the enterprise in Plant and Machinery or Equipment as at 31st March
2020 as per Clause 4 of the Notification is _____ (Rupees in Lakhs).

The turnover of the Enterprise for the period ending 31st March 2020 as per Clause 5
of the Notification is _____ (Rupees in Lakhs).

Date:

(Signature) Name-
Membership number-

Seal of Chartered Accountant with UDIN reference

Certificate by statutory auditor or cost auditor of the company (in the case of companies)

or

from a practicing cost account or the practicing chartered accountant (in respect of supplies other than companies) on their letter head

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017, P-45021/2/2017-PP (BE-II) dated 28.05.2018

AND

P-45021/2/2017-PP (BE-II) dated 29.05.2019, issued by Ministry of Commerce and Industry

AND

P-45021/2/2017-PP (BE-II) dated 04.06.2020, issued by Ministry of Commerce and Industry

AND

Office Memorandum issued by MNRE REF no F No. 146/57/2018-P&C dated 11/12/2018

We hereby certify that

.....
(Supplier name) are local supplier meeting requirement of minimum local content (____%) defined in as above orders for the material against Enquiry No :

RAJBOS0066 for Supply and Commissioning Support of 2.7MVA/2-winding and 5.3MVA/3-winding Outdoor Oil Type Inverter Duty Transformers for 25MW (AC) NTPC SIMHADRI and 22MW (AC) KAYAMKULAM Floating Solar PV Projects

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.

Authorised signatory with date

Name of Authorised Signatory

Seal of Company

On Bidder Letter Head

Date:

To,

M/s Bharat Heavy Electricals Ltd.
Electronics Division, Mysore Road,
Bangalore – 560026

Sub: Model Clause / Certificate as per Annex-III (Tenders) of Restrictions Under Rule 144 (xi) of the
General Financial Rules (GFRs) 2017, Dated 23.07.2020.

Ref: BHEL Tender / RFQ / NIT Number

I (authorized signatory for M/s) have read the clause
regarding restrictions on procurement from a bidder of a country which shares a land border with India ,
we certify that this bidder M/s [Vendor Name & address] is not from such a country
or , if from such a country , has been registered with the competent authority . We hereby certify that
we fulfill all requirements in this regard and is eligible to be considered [attach evidence of valid
registration certificate with competent authority].

For M/s

Authorized Signatory
(With company seal & Name)

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

_____. 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 Independent External Monitor(s), 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. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - 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 IPC/ PC 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 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.

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 Bidders(s)/ Contractor(s) from the tender process or take action as per the separate “Guidelines for Suspension 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 prior to the award 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 has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

Section 5 – Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 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.

Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors

- 6.1 The Bidder(s)/ Contractor(s) undertake(s) to demand from his sub-contractors a commitment consistent with this Integrity Pact. This commitment shall be taken only from those sub-contractors whose contract value is more than 20% of Bidder's/ Contractor's contract value with the Principal.
- 6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 – Criminal Charges against violating Bidders/ Contractors /Sub-contractors

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 Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is 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 Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor 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 Monitor the option to participate in such meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or

take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

- 8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC 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 Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.10 The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

- 9.1 This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.
- 9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 – Other Provisions

- 10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.
- 10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement 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 agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On behalf of the Principal
(Office Seal)

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

Place-----

Date-----

Witness: _____

(Name & Address) _____

Witness: _____

(Name & Address)_____



भारत का राजपत्र The Gazette of India

सी.जी.-डी.एल.-अ.-26062020-220191
CG-DL-E-26062020-220191

असाधारण
EXTRAORDINARY
भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)
प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

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नई दिल्ली, शुक्रवार, जून 26, 2020/आषाढ 5, 1942
NEW DELHI, FRIDAY, JUNE 26, 2020/ASADHA 5, 1942

सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय

अधिसूचना

नई दिल्ली, 26 जून, 2020

का.आ. 2119(अ).—केन्द्रीय सरकार, सूक्ष्म, लघु और मध्यम उद्यम विकास अधिनियम, 2006 (2006 का 27), जिसे इसमें इसके पश्चात् उक्त अधिनियम कहा गया है, की धारा 7 की उप-धारा (9) के साथ पठित उप-धारा (1) और धारा 8 की उप-धारा (3) के साथ पठित उप-धारा (2) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (ii) में प्रकाशित भारत सरकार के सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय की अधिसूचना सं. का.आ.1702(अ), तारीख 1 जून, 2020, का.आ.2052(अ), तारीख 30 जून, 2017, का.आ. 3322(अ), तारीख 1 नवम्बर, 2013 और का.आ. 1722(अ) तारीख 5 अक्टूबर, 2006 को, उन बातों के सिवाय अधिकांश करते हुए जिन्हें ऐसे अधिक्रमण से पहले किया गया है या करने का लोप किया गया है इस निमित्त सलाहकार समिति की सिफारिशों को अभिप्राप्त करने के पश्चात् 1 जुलाई, 2020 से सूक्ष्म, लघु और मध्यम उद्यम के रूप में वर्गीकरण के लिए कतिपय मानदंड अधिसूचित करती है और ज्ञापन (जिसे इस अधिसूचना में इसके पश्चात् “उद्यम रजिस्ट्रीकरण” कहा गया है) फाइल करने की प्ररूप और प्रक्रिया विनिर्दिष्ट करती है, अर्थात्:--

1. उद्यमों का वर्गीकरण.—उद्यम को निम्नलिखित मानदंडों के आधार पर सूक्ष्म, लघु या मध्यम उद्यम में वर्गीकृत किया जाएगा, अर्थात्:--

- ऐसा सूक्ष्म उद्यम, जहां संयंत्र और मशीनरी या उपस्कर में विनिधान एक करोड़ रुपए से अधिक नहीं है और आवर्तन पांच करोड़ रुपए से अधिक नहीं है;

- (ii) ऐसा लघु उद्यम, जहां संयंत्र और मशीनरी या उपस्कर में विनिधान दस करोड़ रुपए से अधिक नहीं है और आवर्तन पचास करोड़ रुपए से अधिक नहीं है; और
- (iii) ऐसा मध्यम उद्यम, जहां संयंत्र और मशीनरी या उपस्कर में विनिधान पचास करोड़ रुपए से अधिक नहीं है और आवर्तन दो सौ पचास करोड़ रुपए से अधिक नहीं है।

2. सूक्ष्म, लघु या मध्यम उद्यम के अंतर्गत शामिल होना:--

- (1) कोई व्यक्ति जो सूक्ष्म, लघु या मध्यम उद्यम स्थापित करने की आशय रखता है, स्व-घोषणा के आधार पर उद्यम रजिस्ट्रीकरण पोर्टल में ऑनलाइन उद्यम रजिस्ट्रीकरण के लिए आवेदन कर सकेगा जिसमें दस्तावेज, कागजात, प्रमाणपत्रों या सबूत को अपलोड करने की कोई आवश्यकता नहीं है।
- (2) रजिस्ट्रीकरण के समय उद्यम (जिसे उद्यम रजिस्ट्रीकरण पोर्टल में “उद्यम” कहा गया है) को “उद्यम रजिस्ट्रीकरण संख्या” के रूप में ज्ञात एक स्थायी पहचान संख्या दी जाएगी।
- (3) रजिस्ट्रीकरण प्रक्रिया पूरी होने पर “उद्यम रजिस्ट्रीकरण प्रमाण पत्र” अर्थात् एक ई-प्रमाणपत्र जारी किया जाएगा।

3. वर्गीकरण के लिए विनिधान और आवर्तन के संबंध में समेकित मापदंड-

- (1) किसी उद्यम को सूक्ष्म, लघु या मध्यम के रूप में वर्गीकरण के लिए विनिधान और आवर्तन का एक समेकित मापदंड लागू होगा।
- (2) यदि कोई उद्यम अपनी वर्तमान श्रेणी के लिए विनिधान या आवर्तन के दोनों मानदंड में से किसी अधिकतम सीमा को पार करता है, तो वह उस श्रेणी में अस्तित्वहीन हो जाएगा तथा उसे अगली उच्चतर श्रेणी में रखा जाएगा किन्तु किसी भी उद्यम को तब तक निम्नतर श्रेणी में नहीं रखा जाएगा जब तक वह विनिधान तथा आवर्तन के दोनों मापदंडों में अपनी वर्तमान श्रेणी के लिए विनिर्दिष्ट अधिकतम सीमा के नीचे नहीं चला जाता हो।
- (3) वस्तु और सेवा कर पहचान संख्या (जीएसटीआईएन) सहित सभी इकाइयां, जिन्हें समान स्थायी खाता संख्या (पैन) के लिए सूचीबद्ध किया गया है, को सामूहिक रूप से एक उद्यम के रूप में माना जाएगा और ऐसी सभी इकाइयों के लिए विनिधान और आवर्तन संबंधी आंकड़ों पर सामूहिक रूप से ध्यान दिया जाएगा तथा सूक्ष्म, लघु या मध्यम के रूप में श्रेणी का विनिश्चय करने के लिए केवल कुल मूल्य पर विचार किया जाएगा।

4. संयंत्र और मशीनरी या उपस्कर में विनिधान की गणना:-

- (1) संयंत्र और मशीनरी या उपस्कर में विनिधान की गणना को आय कर अधिनियम, 1961 के तहत फाइल किए गए पूर्ववर्ती वर्षों के आयकर रिटर्न (आईटीआर) से जोड़ा जाएगा।
- (2) नए उद्यम की दशा में, जहां कोई पूर्व आईटीआर उपलब्ध नहीं है, वहां उद्यम के संप्रवर्तक के स्व-घोषणा के आधार पर विनिधान किया जाएगा और ऐसी छूट उस वित्त वर्ष में 31 मार्च के पश्चात समाप्त हो जाएगी जिसमें वह उद्यम अपना पहला आईटीआर फाइल करता है।
- (3) उद्यम के “संयंत्र और मशीनरी या उपस्कर” का वही अर्थ होगा जो आयकर अधिनियम, 1961 के अधीन विरचित आयकर नियम, 1962 में संयंत्र और मशीनरी में उसका है और इसमें सभी मूर्त अस्तियाँ (भूमि और भवन, फर्नीचर और फिटिंग से भिन्न) शामिल होंगी।

- (4) यदि उद्यम बिना किसी आईटीआर का नया है, तो संयंत्र और मशीनरी या उपस्कर की खरीद (इन्वॉइस) मूल्य, चाहे पहली बार या दूसरी बार खरीदा गया हो, माल और सेवा कर (जीएसटी) को छोड़कर, स्व-प्रकटीकरण के आधार पर हिसाब में लिया जाएगा।
- (5) अधिनियम की धारा 7 की उप-धारा (1) के स्पष्टीकरण I में निर्दिष्ट कुछ वस्तुओं की लागत को संयंत्र और मशीनरी में विनिधान की राशि की गणना से बाहर रखा जाएगा।

5. आवर्तन की गणना—

- (1) वर्गीकरण के प्रयोजन के लिए कोई उद्यम, चाहे वह सूक्ष्म, लघु या मध्यम हो, के आवर्तन की गणना करते समय माल या सेवाओं या दोनों के निर्यात को बाहर रखा जाएगा।
- (2) उद्यम के लिए आवर्तन और निर्यात आवर्तन के संबंध में जानकारी आयकर अधिनियम या केंद्रीय माल और सेवा अधिनियम (सीजीएसटी अधिनियम) और जीएसटीआईएन से संबद्ध होगी।
- (3) ऐसे उद्यम के आवर्तन संबंधी आंकड़े, जिनके पास पैन नहीं है, को 31 मार्च, 2021 तक की अवधि के लिए स्व-घोषणा के आधार पर माना जाएगा और उसके पश्चात्, पैन और जीएसटीआईएन अनिवार्य होगा।

6. रजिस्ट्रीकरण की प्रक्रिया—

- (1) रजिस्ट्रीकरण के लिए प्ररूप उद्यम रजिस्ट्रीकरण पोर्टल में उपलब्ध कराया जाएगा।
- (2) उद्यम रजिस्ट्रीकरण फाइल करने के लिए कोई फीस नहीं होगा।
- (3) उद्यम रजिस्ट्रीकरण के लिए आधार संख्या अपेक्षित होगी।
- (4) आधार संख्या स्वामित्व फर्म के मामले में स्वत्वधारी की होगी, भागीदारी फर्म के मामले में प्रबंधक भागीदार की और हिंदू अविभक्त कुटुंब (एचयूएफ) के मामले में कर्ता की होगी।
- (5) कंपनी या सीमित देयता भागीदारी या किसी सहकारी समिति या सोसाइटी या ट्रस्ट के मामले में, संगठन या उसके प्राधिकृत हस्ताक्षरकर्ता अपने आधार संख्या सहित अपना जीएसटीआईएन और पैन उपलब्ध करेंगे।
- (6) यदि कोई उद्यम पैन सहित उद्यम के रूप में सम्यकरूप से रजिस्ट्रीकृत है, तो पूर्व वर्षों की किसी भी जानकारी की कमी, जब उसके पास पैन नहीं था, को स्व-घोषणा के आधार पर भरा जाएगा।
- (7) कोई भी उद्यम एक से अधिक उद्यम रजिस्ट्रीकरण फाइल नहीं करेगा:
परन्तु विनिर्माण या सेवा या दोनों प्रकार की गतिविधियों को एक उद्यम रजिस्ट्रीकरण में विनिर्दिष्ट किया या जोड़ा जाए।
- (8) यदि कोई जानबूझकर दुर्व्यपदेशन जानकारी देता है या उद्यम रजिस्ट्रीकरण या उन्नयन प्रक्रिया में दिखाई देने वाले स्व-घोषित तथ्यों और आंकड़ों को छिपाने का प्रयास करता है, तो वह अधिनियम की धारा 27 के अधीन विनिर्दिष्ट दंड का पात्र होगा।

7. विद्यमान उद्यमों का रजिस्ट्रीकरण.—

- (1) ईएम-भाग-II या यूएम के अधीन रजिस्ट्रीकृत सभी विद्यमान उद्यम 1 जुलाई, 2020 को या उसके पश्चात् उद्यम रजिस्ट्रीकरण पोर्टल पर फिर से रजिस्ट्रीकरण करेंगे।
- (2) 30 जून, 2020 तक रजिस्ट्रीकृत सभी उद्यमों को इस अधिसूचना के अनुसार फिर से वर्गीकृत किया जाएगा।
- (3) 30 जून, 2020 से पहले रजिस्ट्रीकृत विद्यमान उद्यम केवल 31 मार्च, 2021 तक की अवधि के लिए विधिमान्य रहेंगे।
- (4) सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय के अधीन किसी अन्य संगठन के साथ रजिस्ट्रीकृत उद्यम, उद्यम रजिस्ट्रीकरण के अधीन स्वयं को रजिस्ट्रीकृत करेंगे।

8. सूचना का अद्यतन और वर्गीकरण में संक्रमण अवधि—

- (1) उद्यम रजिस्ट्रीकरण संख्या वाला कोई उद्यम पूर्ववर्ती वित्तीय वर्ष के लिए आईटीआर और जीएसटी रिटर्न के ब्यौरे सहित उद्यम रजिस्ट्रीकरण पोर्टल में ऑनलाइन अपनी सूचना तथा ऐसी अन्य अतिरिक्त सूचना, जो अपेक्षित हो, स्व-घोषणा के आधार पर अद्यतन करेगा।
- (2) ऑनलाइन उद्यम रजिस्ट्रीकरण पोर्टल में विनिर्दिष्ट अवधि के भीतर सुसंगत जानकारी अद्यतन करने में विफल होने पर उसका स्तर रद्द किए जाने के लिए उद्यम स्वयं जिम्मेदार होगा।
- (3) प्रदान की गई जानकारी या आईटीआर या जीएसटी रिटर्न सहित सरकारी स्रोतों से प्राप्त की गई जानकारी के आधार पर उद्यम के वर्गीकरण को अद्यतन किया जाएगा।
- (4) किसी उद्यम की क्रमिक वृद्धि (निम्नतर से उच्चतर श्रेणी में) अथवा क्रमिक ह्रास (निम्नतर श्रेणी की ओर अग्रसर होना) की स्थिति में उद्यम को उसके स्तर में होने वाले परिवर्तन के बारे में सूचित किया जाएगा।
- (5) संयंत्र और मशीनरी या उपस्कर में विनिधान या आवर्तन अथवा दोनों में उच्चतर परिवर्तन तथा परिणामस्वरूप पुनः वर्गीकरण की स्थिति में उद्यम रजिस्ट्रीकरण के वर्ष के समाप्त होने से लेकर एक वर्ष की समाप्ति तक अपने वर्तमान स्तर को बरकरार रखेगा।
- (6) किसी उद्यम के क्रमिक ह्रास की स्थिति में, चाहे वह पुनः वर्गीकरण के परिणामस्वरूप हुआ हो या संयंत्र और मशीनरी अथवा उपस्कर में विनिधान या आवर्तन में वास्तविक परिवर्तन अथवा दोनों के कारण हुआ हो तथा चाहे उद्यम अधिनियम के अधीन रजिस्ट्रीकृत हो अथवा नहीं, उद्यम वित्तीय वर्ष की समाप्ति तक अपनी वर्तमान श्रेणी में बना रहेगा तथा उसे ऐसे परिवर्तन वाले वर्ष के पश्चात् के वित्तीय वर्ष के 1 अप्रैल से परिवर्तित स्तर का लाभ प्रदान किया जाएगा।

9. उद्यमों की सुविधा और उनकी शिकायतों का निवारण—

- (1) विभिन्न संस्थाओं और विकास संस्थाओं (एमएसएमडीआई) सहित सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय के कार्यालयों में कार्यरत चैंपियन कंट्रोल रूम रजिस्ट्रीकरण की प्रक्रिया को सुविधाजनक बनाने और सूक्ष्म, लघु और मध्यम उद्यमों को आगे सुगमता पूर्वक सभी प्रकार की संभव सहायता उपलब्ध कराने के लिए एकल खिड़की प्रणाली के रूप में कार्य करेंगे।
- (2) जिला उद्योग केंद्र (डीआईसी) भी अपने-अपने जिलों में एकल खिड़की सुविधा प्रणाली के रूप में कार्य करेंगे।
- (3) यदि कोई व्यक्ति किसी कारणवश जिसके अन्तर्गत आधार संख्या का न होना भी है, उद्यम रजिस्ट्रीकरण फाइल नहीं कर पाता है तो वह अपने आधार संख्या नामांकन पहचान पर्ची अथवा आधार नामांकन के अनुरोध की प्रति अथवा बैंक की फोटोयुक्त पासबुक अथवा मतदाता पहचान पत्र अथवा पासपोर्ट अथवा ड्राइविंग लाइसेंस में से किसी भी एक को लेकर उपर्युक्त किसी भी एकल खिड़की प्रणाली से उद्यम रजिस्ट्रीकरण के लिए संपर्क कर सकता है तथा एकल खिड़की प्रणाली, जिसके अंतर्गत प्रक्रिया भी है, उसकी आधार संख्या प्राप्त करने में सहायता करेगी और तत्पश्चात् उद्यम रजिस्ट्रीकरण की आगे की प्रक्रिया में सहायता करेगी।
- (4) किसी भी त्रुटि अथवा शिकायत के मामले में संबंधित जिले के जिला उद्योग केन्द्र का महाप्रबंधक उद्यम द्वारा दिए गए उद्यम रजिस्ट्रीकरण के ब्यौरों के सत्यापन के संबंध में जांच करेगा और तत्पश्चात् अपनी आवश्यक टिप्पणी के साथ मामले को संबंधित राज्य सरकार के निदेशक अथवा आयुक्त अथवा उद्योग सचिव के पास भेजेगा जो उद्यम को नोटिस जारी करने और उसे मामले को प्रस्तुत करने का अवसर प्रदान करेगा तथा जांच के आधार पर ब्यौरों में संशोधन कर सकेगा अथवा सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय से उद्यम रजिस्ट्रीकरण प्रमाण पत्र निरस्त करने की सिफारिश कर सकेगा।

[फा. सं. 21(5)/2019-पीएण्डजी/पालिसी(पार्ट-IV)]

ए. के. शर्मा, सचिव

MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISES**NOTIFICATION**

New Delhi, the 26th June, 2020

S.O. 2119(E).—In exercise of the powers conferred by sub-section (1) read with sub-section (9) of section 7 and sub-section (2) read with sub-section (3) of section 8, of the Micro, Small and Medium Enterprises Development Act, 2006, (27 of 2006), hereinafter referred to as the said Act, and in supersession of the notifications of the Government of India in the Ministry of Micro, Small and Medium Enterprises number S.O.1702 (E), dated the 1st June, 2020, S.O. 2052 (E), dated the 30th June, 2017, S.O.3322 (E), dated the 1st November, 2013 and S.O.1722 (E), dated the 5th October, 2006, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-Section (ii), except as respects things done or omitted to be done before such supersession, the Central Government, after obtaining the recommendations of the Advisory Committee in this behalf, hereby notifies certain criteria for classifying the enterprises as micro, small and medium enterprises and specifies the form and procedure for filing the memorandum (hereafter in this notification to be known as “Udyam Registration”), with effect from the 1st day of July, 2020, namely:--

1. Classification of enterprises.—An enterprise shall be classified as a micro, small or medium enterprise on the basis of the following criteria, namely:--

- (i) a micro enterprise, where the investment in plant and machinery or equipment does not exceed one crore rupees and turnover does not exceed five crore rupees;
- (ii) a small enterprise, where the investment in plant and machinery or equipment does not exceed ten crore rupees and turnover does not exceed fifty crore rupees; and
- (iii) a medium enterprise, where the investment in plant and machinery or equipment does not exceed fifty crore rupees and turnover does not exceed two hundred and fifty crore rupees.

2. Becoming a micro, small or medium enterprise.—

- (1) Any person who intends to establish a micro, small or medium enterprise may file Udyam Registration online in the Udyam Registration portal, based on self-declaration with no requirement to upload documents, papers, certificates or proof.
- (2) On registration, an enterprise (referred to as “Udyam” in the Udyam Registration portal) will be assigned a permanent identity number to be known as “Udyam Registration Number”.
- (3) An e-certificate, namely, “Udyam Registration Certificate” shall be issued on completion of the registration process.

3. Composite criteria of investment and turnover for classification.—

- (1) A composite criterion of investment and turnover shall apply for classification of an enterprise as micro, small or medium.
- (2) If an enterprise crosses the ceiling limits specified for its present category in either of the two criteria of investment or turnover, it will cease to exist in that category and be placed in the next higher category but no enterprise shall be placed in the lower category unless it goes below the ceiling limits specified for its present category in both the criteria of investment as well as turnover.
- (3) All units with Goods and Services Tax Identification Number (GSTIN) listed against the same Permanent Account Number (PAN) shall be collectively treated as one enterprise and the turnover and investment figures for all of such entities shall be seen together and only the aggregate values will be considered for deciding the category as micro, small or medium enterprise.

4. Calculation of investment in plant and machinery or equipment.—

- (1) The calculation of investment in plant and machinery or equipment will be linked to the Income Tax Return (ITR) of the previous years filed under the Income Tax Act, 1961.

- (2) In case of a new enterprise, where no prior ITR is available, the investment will be based on self-declaration of the promoter of the enterprise and such relaxation shall end after the 31st March of the financial year in which it files its first ITR.
- (3) The expression “plant and machinery or equipment” of the enterprise, shall have the same meaning as assigned to the plant and machinery in the Income Tax Rules, 1962 framed under the Income Tax Act, 1961 and shall include all tangible assets (other than land and building, furniture and fittings).
- (4) The purchase (invoice) value of a plant and machinery or equipment, whether purchased first hand or second hand, shall be taken into account excluding Goods and Services Tax (GST), on self-disclosure basis, if the enterprise is a new one without any ITR.
- (5) The cost of certain items specified in the *Explanation I* to sub-section (1) of section 7 of the Act shall be excluded from the calculation of the amount of investment in plant and machinery.

5. Calculation of turnover.--

- (1) Exports of goods or services or both, shall be excluded while calculating the turnover of any enterprise whether micro, small or medium, for the purposes of classification.
- (2) Information as regards turnover and exports turnover for an enterprise shall be linked to the Income Tax Act or the Central Goods and Services Act (CGST Act) and the GSTIN.
- (3) The turnover related figures of such enterprise which do not have PAN will be considered on self-declaration basis for a period up to 31st March, 2021 and thereafter, PAN and GSTIN shall be mandatory.

6. Registration process.—

- (1) The form for registration shall be as provided in the Udyam Registration portal.
- (2) There will be no fee for filing Udyam Registration.
- (3) Aadhaar number shall be required for Udyam Registration.
- (4) The Aadhaar number shall be of the proprietor in the case of a proprietorship firm, of the managing partner in the case of a partnership firm and of a karta in the case of a Hindu Undivided Family (HUF).
- (5) In case of a Company or a Limited Liability Partnership or a Cooperative Society or a Society or a Trust, the organisation or its authorised signatory shall provide its GSTIN and PAN along with its Aadhaar number.
- (6) In case an enterprise is duly registered as an Udyam with PAN, any deficiency of information for previous years when it did not have PAN shall be filled up on self-declaration basis.
- (7) No enterprise shall file more than one Udyam Registration:
Provided that any number of activities including manufacturing or service or both may be specified or added in one Udyam Registration.
- (8) Whoever intentionally misrepresents or attempts to suppress the self-declared facts and figures appearing in the Udyam Registration or updation process shall be liable to such penalty as specified under section 27 of the Act.

7. Registration of existing enterprises.---

- (1) All existing enterprises registered under EM–Part-II or UAM shall register again on the Udyam Registration portal on or after the 1st day of July, 2020.
- (2) All enterprises registered till 30th June, 2020, shall be re-classified in accordance with this notification.
- (3) The existing enterprises registered prior to 30th June, 2020, shall continue to be valid only for a period up to the 31st day of March, 2021.

- (4) An enterprise registered with any other organisation under the Ministry of Micro, Small and Medium Enterprises shall register itself under Udyam Registration.

8. Updation of information and transition period in classification.--

- (1) An enterprise having Udyam Registration Number shall update its information online in the Udyam Registration portal, including the details of the ITR and the GST Return for the previous financial year and such other additional information as may be required, on self-declaration basis.
- (2) Failure to update the relevant information within the period specified in the online Udyam Registration portal will render the enterprise liable for suspension of its status.
- (3) Based on the information furnished or gathered from Government's sources including ITR or GST return, the classification of the enterprise will be updated.
- (4) In case of graduation (from a lower to a higher category) or reverse-graduation (sliding down to lower category) of an enterprise, a communication will be sent to the enterprise about the change in the status.
- (5) In case of an upward change in terms of investment in plant and machinery or equipment or turnover or both, and consequent re-classification, an enterprise will maintain its prevailing status till expiry of one year from the close of the year of registration.
- (6) In case of reverse-graduation of an enterprise, whether as a result of re-classification or due to actual changes in investment in plant and machinery or equipment or turnover or both, and whether the enterprise is registered under the Act or not, the enterprise will continue in its present category till the closure of the financial year and it will be given the benefit of the changed status only with effect from 1st April of the financial year following the year in which such change took place.

9. Facilitation and grievance redressal of enterprises.--

- (1) The Champions Control Rooms functioning in various institutions and offices of the Ministry of Micro, Small and Medium Enterprises including the Development Institutes (MSME-DI) shall act as Single Window Systems for facilitating the registration process and further handholding the micro, small and medium enterprises in all possible manner.
- (2) The District Industries Centres (DICs) will also act as Single Window facilitation Systems in their Districts.
- (3) Any person who is not able to file the Udyam Registration for any reason including for lack of Aadhaar number, may approach any of the above Single Window Systems for Udyam Registration purposes with his Aadhaar enrolment identity slip or copy of Aadhaar enrolment request or bank photo pass book or voter identity card or passport or driving licence and the Single Window Systems will facilitate the process including getting an Aadhaar number and thereafter in the further process of Udyam Registration.
- (4) In case of any discrepancy or complaint, the General Manager of the District Industries Centre of the concerned District shall undertake an enquiry for verification of the details of Udyam Registration submitted by the enterprise and thereafter forward the matter with necessary remarks to the Director or Commissioner or Industry Secretary concerned of the State Government who after issuing a notice to the enterprise and after giving an opportunity to present its case and based on the findings, may amend the details or recommend to the Ministry of Micro, Small or Medium Enterprises, Government of India, for cancellation of the Udyam Registration Certificate.

[F. No. 21(5)/2019-P&G/Policy (Pt-IV)]

A. K. SHARMA, Secy.

F. No. 146/57/2018-P&C
Government of India
Ministry of New & Renewable Energy

Block 14, CGO Complex,
Lodhi Road, New Delhi- 110003

Date: 11th December, 2018

OFFICE MEMORANDUM

Subject: - Implementation of Public Procurement (Preference to Make in India) Order for Renewable Energy sector-reg.

The Government has issued Public Procurement (Preference to Make in India) Order 2017 vide Department of Industrial Policy & Promotion (DIPP) notification no. P-45021/2/2017-B.E.-II, dated 15.06.2017 to encourage 'Make in India' and to promote manufacturing and production of goods and services in India with a view to enhancing income and employment.

2. The above orders are applicable to all Ministries/ Departments or attached or subordinate officers of the Government of India or Autonomous bodies controlled by Government of India and include Government Companies as defined under the Companies Act. Therefore it is hereby directed that this Ministry and all Departments/ attached offices/ subordinate offices of this Ministry or autonomous bodies controlled by Government of India or Government companies defined under the Companies Act shall follow the above orders in all their procurements.

3. Products related to renewable energy sector to be covered under the Public Procurement (Preference to Make in India) Order are as follows:-

Renewable Energy Technology	List of Products to be covered under the Public Procurement (Preference to Make in India) Order	Minimum Percentage of local content required for the renewable energy products
Small Hydro Power	Apart from civil construction, preference shall be provided in Central Ministries/Department and Central PSUs to domestically manufactured/produced products such as turbine, generator, penstock pipelines, control panel, governors, cables, valves, transformers, switch gears, etc. for small hydro power projects.	80
Wind Power	Apart from civil construction, preference shall be provided in Central Ministries/Department and Central PSUs to domestically manufactured/produced products such as gear box, blades, rotor, generator, tower, hub, parts of controller, bearings, yaw mechanism components,	80 (Besides hub and nacelle assembly/manufacturing facility should be in India)

O/C Issued
12/12/18

	nacelle, hub, etc. for wind power projects.	
Off Grid/Decentralized solar power	Apart from civil construction, preference shall be provided in Central Ministries/Department and Central PSUs to domestically manufactured/produced products such as solar street lights, solar home lighting systems, solar power packs/micro grid, solar water pumps, inverters, batteries and any other solar PV balance of system components for Off Grid/Decentralized solar power projects.	70
Grid connected Solar Power projects	Apart from civil construction, preference shall be provided in Central Ministries/Department and Central PSUs to domestically manufactured/produced products such as solar PV modules and other components such as inverters, etc. for Grid connected solar power projects.	Solar modules: 1 00 Other components such as inverter, etc.: 4 0
Biomass gasifier	Apart from civil construction, preference shall be provided in Central Ministries/Department and Central PSUs to domestically manufactured/produced products such as biomass gasifier reactor, Feed hopper, ash removal system, ash pump, cyclone, hot gas filter, gas blower, gas piping, control panel, platforms and ladders, water seals, gas burner for start up, automatic gas burner, etc. for biomass gasifier projects.	80
Biomass Cogeneration	Apart from civil construction, preference shall be provided in Central Ministries/Department and Central PSUs to domestically manufactured/produced products such as boiler and its auxiliaries including ESP, turbines/ generator & its auxiliaries, electrical evacuation and distribution system, bagasse/biomass fuel storage and handling equipment, ash handling systems, cooling tower or air cooled condensers and its auxiliaries, water treatment plant, control system, interface piping, EOT crane, ETP, etc. for biomass cogeneration projects.	80
Municipal Solid Waste (MSW) projects	Apart from civil construction, preference shall be provided in Central Ministries/Department and Central PSUs to domestically manufactured/produced products such as boiler,	60

	flue gas cleaning system, grab crane system, waste processing system, leachate treatment plant, chimney, water/air condenser, turbine-generator, water treatment plant, ash treatment plant, control and instrumentation system, etc. for MSW based projects.	
Waste to Energy (biogas/bio-CNG)	Apart from civil construction, preference shall be provided in Central Ministries/Department and Central PSUs to domestically manufactured/produced products such as feed mixer tank, mixing agitator, feeding pump, digester tank, stirring agitator, double membrane balloon, liquid & gas piping systems, biogas purification system, B-CNG booster compressor, B-CNG filling header, cylinder casket, CNG dispenser, power generator, etc. for Waste to Energy (biogas/bio-CNG) projects.	80

* Products/items related to renewable energy sector being procured for Research & Development (R&D) purpose / Demonstration projects shall be exempted from this Public Procurement (Preference to Make in India) Order.

** Electricity/biogas/bio-CNG or any other end product generated through these renewable energy products procured under this Public Procurement (Preference to Make in India) Order shall be utilized for captive/non-commercial purposes only.

4. **Verification of local content/Domestic value addition:**

- a. The local supplier at the time of tender/bidding shall be required to provide self-certification that the items being offered meets the minimum local content and shall give details of the locations at which the local value addition is made.
 - b. In case of procurement of a value in excess of Rs 10 Crore, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company or from a practicing cost accountant or practising chartered accountant giving the percentage of local content.
 - c. 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 may 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.
 - d. The administrative Ministry/Department (MNRE/M/o Power/ONGC/NTPC, etc. as the case may be) will constitute Technical Committees with internal and external experts for independent verification of self-declarations and auditor's/accountants' certificates on random basis and in case of complaints.
5. This comes into effect immediately and shall remain valid till revised order is issued.
6. MNRE shall be nodal Ministry to issue order under the Public Procurement (Preference to Make in India) Order, 2017 for procurement of renewable energy products from time to time.

7. In case of any doubt whether an item being procured is a renewable energy product to be covered under the Public Procurement (Preference to Make in India) Order for renewable energy products, the matter would be referred to the Ministry of New & Renewable Energy for clarification.

Anjani Nandan Sharan
19.12.2018

(Anjani Nandan Sharan)

Joint Secretary to Government of India

To

- 1) All Ministries/Departments of Government of India
- 2) Cabinet Secretariat
- 3) CMD, IREDA/MD, SECI/DG, NISE/DG, NIWE/ DG, NIBE
- 4) Joint Secretary (DIPP), Member – Convener of Standing Committee of public Procurement Order 2017

No. DPE/7(4)/2017-Fin.
Government of India
Ministry of Heavy Industries & Public Enterprises
Department of Public Enterprises

Public Enterprises Bhawan
Block No.14, CGO Complex
New Delhi – 110003

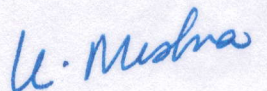
Date: 25th June, 2020

OFFICE MEMORANDUM

Subject: Global Tender Enquiry (GTE) -regarding

The undersigned is directed to forward the Department of Expenditure (DoE) OM No. 12/17/2019-PPD dated 15th May, 2020 and subsequent clarifications issued vide OMs No.12/17/2019-PPD dated 28th May, 2020 on the above mentioned subject for information and compliance by CPSEs.

2. All the administrative Ministries/ Departments of CPSEs are requested to direct their CPSEs to follow the above directions.
3. This issues with the approval of competent authority.


(Kalyani Mishra)
Director
Tel.24362061

Encl.: As above

To

- i) All the Secretaries to the Administrative Ministries/Departments of CPSEs
- ii) Chief Executives of CPSEs

F.No.12/17/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division

North Block, New Delhi
Dated the 15th May, 2020

Subject: Amendment in General Financial Rules (GFRs), 2017 – Global Tender Enquiry

In pursuance of Prime Minister's address to the Nation on 12.05.2020, in order to promote self reliance, Make in India and to promote Micro, Small and Medium Enterprises (MSMEs), it has been decided to make following amendments in the GFRs:

Present Rule 161(iv)	Amended Rule 161(iv)
Where the Ministry or Department feels that the goods of the required quality, specifications etc., may not be available in the country and it is necessary to also look for suitable competitive offers from abroad, the Ministry or Department may send copies of the tender notice to the Indian Embassies abroad as well as to the Foreign Embassies in India. The selection of the embassies will depend on the possibility of availability of the required goods in such countries. In such cases e-procurement as per Rule 160 may not be insisted.	(a) Global Tender Enquiry (GTE): Where the Ministry or Department feels that the goods of the required quality, specifications etc., may not be available in the country and it is necessary to also look for suitable competitive offers from abroad, the Ministry or Department may send copies of the tender notice to the Indian Embassies abroad as well as to the Foreign Embassies in India. The selection of the embassies will depend on the possibility of availability of the required goods in such countries. In such cases e-procurement as per Rule 160 may not be insisted (b) No Global Tender Enquiry (GTE), however shall be invited for tenders up to Rs 200 crore or such limit as may be prescribed by the Department of Expenditure from time to time.

	Provided that for tenders below such limit, in exceptional cases, where the Ministry or Department feels that there are special reasons for GTE, it may record its detailed justification and seek prior approval for relaxation to the above rule from the Competent Authority specified by the Department of Expenditure.
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2. Instructions regarding Competent Authority mentioned in Rule 161 (iv) (b) will be issued separately.

15.5.20

(Sanjay Aggarwal)

Director (PPD)

sanjay.aggarwal68@nic.in

011-23094961

To

1. Secretaries of all Ministries/ Departments, Govt of India
2. Mr Sailesh, Secretary, Department of Public Enterprises, Room no 301, Block 14, CGO complex, New Delhi. Tel: 24366171, email: secy-dpe@nic.in with a request to consider issuing similar instructions with respect to Central Public Sector Undertakings.

No.F.12/17/2019-PPD
Government of India
Ministry of Finance
Department of Expenditure
Procurement Policy Division

168c North Block, New Delhi,
Dated: 28th May, 2020.

Subject: Global Tender Enquiry (GTE).

Attention is invited to this office OM No. F.12/17/2019-PPD dated 15.05.2020 amending Rule 161(iv) of General Financial Rules (GFRs), 2017 and specifying that no GTE shall be invited for tenders up to Rs.200 crore. It is further clarified in this regard that:

- (i) Restriction on Global Tenders as specified in the revised Rule 161(iv) will be applicable on all procurements including Goods, Non- consulting services, Consultancy Services and Works including turnkey projects.
- (ii) The instructions are applicable with immediate effect i.e. for all the tenders published in newspapers or website after 15.05.2020.

28.5.20

Sanjay Aggarwal
Director (PPD)
sanjay.aggarwal68@nic.in
011-23094961

To,

Secretaries of all Central Government Ministries/ Departments

No.F.12/17/2019-PPD
Government of India
Ministry of Finance
Department of Expenditure
Procurement Policy Division

168c North Block, New Delhi,
Dated: 28th May, 2020.

Subject: Global Tender Enquiry (GTE).

Attention is invited to this office OM No. F.12/17/2019-PPD dated 15.05.2020 amending Rule 161(iv) of General Financial Rules (GFRs), 2017 and specifying that no GTE shall be invited for tenders up to Rs.200 crore. It was further stipulated that for tenders below 200 crore, where Ministry or Department feels that there are special reasons for GTE, it may record its detailed justification and seek prior approval for relaxation from the competent authority to be specified by Department of Expenditure (DoE).

2. The Secretary (Coordination), Cabinet Secretariat shall be the competent authority under Rule 161 (iv) (b) of GFR. Ministries/ Departments are advised to send only well reasoned proposals to Secretary (Coordination). Secretary (Coordination), if required, may consult Department of Expenditure, Administrative Ministry and any other Ministry/ Department as he deemed fit.

28.5.20

Sanjay Aggarwal
Director (PPD)
sanjay.aggarwal68@nic.in
011-23094961

To,

Secretaries of all Central Government Ministries/ Departments

No. P-45021/2/2017-PP (BE-II)
Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
(Public Procurement Section)

Udyog Bhawan, New Delhi
Dated: 04th June, 2020

To

All Central Ministries/Departments/CPSUs/All concerned

ORDER

Subject: Public Procurement (Preference to Make in India), Order 2017– Revision; regarding.

Department for Promotion of Industry and Internal Trade, in partial modification [Paras 2, 3, 5, 9(a), 9(b) and 10(b) modified and Para 3A added] of Order No.P-45021/2/2017-B.E.-II dated 15.6.2017 as amended by Order No.P-45021/2/2017-B.E.-II dated 28.05.2018 and Order No.P-45021/2/2017-B.E.-II dated 29.05.2019, hereby issues the revised 'Public Procurement (Preference to Make in India), Order 2017' dated 04.06.2020 effective with immediate effect.

Whereas it is the policy of the Government of India to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment, and

Whereas procurement by the Government is substantial in amount and can contribute towards this policy objective, and

Whereas local content can be increased through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them,

Now therefore the following Order is issued:

1. This Order is issued pursuant to Rule 153 (iii) of the General Financial Rules 2017.
2. **Definitions:** For the purposes of this Order:

'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under this Order.

'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order.

.....Contd. p/2

'Non - Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under this Order.

'L1' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'Margin of purchase preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'Nodal Ministry' means the Ministry or Department identified pursuant to this order in respect of a particular item of goods or services or works.

'Procuring entity' means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

'Works' means all works as per Rule 130 of GFR- 2017, and will also include *'turnkey works'*.

3. Eligibility of 'Class-I local supplier' / 'Class-II local supplier' / 'Non-local suppliers' for different types of procurement

(a) In procurement of all goods, services or works in respect of which the Nodal Ministry / Department has communicated that there is sufficient local capacity and local competition, only 'Class-I local supplier', as defined under the Order, shall be eligible to bid irrespective of purchase value.

(b) In procurement of all goods, services or works, not covered by sub-para 3(a) above, and with estimated value of purchases less than Rs. 200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure. Only 'Class-I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'.

(c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

3A. Purchase Preference

(a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.

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(b) In the procurements of goods or works, which are covered by para 3(b) above and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
- ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

(c) In the procurements of goods or works, which are covered by para 3(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
- ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
- iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

(d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

4. **Exemption of small purchases:** Notwithstanding anything contained in paragraph 3, procurements where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order. However, it shall be ensured by procuring entities that procurement is not split for the purpose of avoiding the provisions of this Order.
5. **Minimum local content:** The local content requirement to categorize a supplier as 'Class-I local supplier'/ 'Class-II local supplier'/ 'Non-local supplier' shall be as defined in the Para "2" of the Order. No change is permissible on this account. However, if any nodal Ministry/ Department finds that for any particular item, pertaining to their nodal ministry/department, the definition of Local Content, as defined in the Order, is not workable/ has limitations, it may notify alternate suitable mechanism for calculation of local content for that particular item.
6. **Margin of Purchase Preference:** The margin of purchase preference shall be 20%.
7. **Requirement for specification in advance:** The minimum local content, the margin of purchase preference and the procedure for preference to Make in India shall be specified in the notice inviting tenders or other form of procurement solicitation and shall not be varied during a particular procurement transaction.
8. **Government E-marketplace:** In respect of procurement through the Government E-marketplace (GeM) shall, as far as possible, specifically mark the items which meet the minimum local content while registering the item for display, and shall, wherever feasible, make provision for automated comparison with purchase preference and without purchase preference and for obtaining consent of the local supplier in those cases where purchase preference is to be exercised.
9. **Verification of local content:**
 - a. The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.
 - b. In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
 - c. Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.

- d. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-declarations and auditor's/ accountant's certificates on random basis and in the case of complaints.
- e. Nodal Ministries and procuring entities may prescribe fees for such complaints.
- f. 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.
- g. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed under paragraph 9h below.
- h. The Department of Expenditure shall issue suitable instructions for the effective and smooth operation of this process, so that:
 - i. The fact and duration of debarment for violation of this Order by any procuring entity are promptly brought to the notice of the Member-Convenor of the Standing Committee and the Department of Expenditure through the concerned Ministry /Department or in some other manner;
 - ii. on a periodical basis such cases are consolidated and a centralized list or decentralized lists of such suppliers with the period of debarment is maintained and displayed on website(s);
 - iii. in respect of procuring entities other than the one which has carried out the debarment, the debarment takes effect prospectively from the date of uploading on the website(s) in the such a manner that ongoing procurements are not disrupted.

10. Specifications in Tenders and other procurement solicitations:

- a. Every procuring entity shall ensure that the eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.
- b. Procuring entities shall endeavour to see that eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of 'Class-I local supplier'/ 'Class-II local supplier' who would otherwise be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.
- c. Procuring entities shall, within 2 months of the issue of this Order review all existing eligibility norms and conditions with reference to sub-paragraphs 'a' and 'b' above.

- d. If a Nodal Ministry is satisfied that Indian suppliers of an item are not allowed to participate and/ or compete in procurement by any foreign government, it may, if it deems appropriate, restrict or exclude bidders from that country from eligibility for procurement of that item and/ or other items relating to that Nodal Ministry. A copy of every instruction or decision taken in this regard shall be sent to the Chairman of the Standing Committee.
- e. For the purpose of sub-paragraph 10 d above, a supplier or bidder shall be considered to be from a country if (i) the entity is incorporated in that country, or (ii) a majority of its shareholding or effective control of the entity is exercised from that country; or (iii) more than 50% of the value of the item being supplied has been added in that country. Indian suppliers shall mean those entities which meet any of these tests with respect to India."

10A. Action for non-compliance of the Provisions of the Order: In case restrictive or discriminatory conditions against domestic suppliers are included in bid documents, an inquiry shall be conducted by the Administrative Department undertaking the procurement (including procurement by any entity under its administrative control) to fix responsibility for the same. Thereafter, appropriate action, administrative or otherwise, shall be taken against erring officials of procurement entities under relevant provisions. Intimation on all such actions shall be sent to the Standing Committee.

11. Assessment of supply base by Nodal Ministries: The Nodal Ministry shall keep in view the domestic manufacturing / supply base and assess the available capacity and the extent of local competition while identifying items and prescribing minimum local content or the manner of its calculation, with a view to avoiding cost increase from the operation of this Order.

12. Increase in minimum local content: The Nodal Ministry may annually review the local content requirements with a view to increasing them, subject to availability of sufficient local competition with adequate quality.

13. Manufacture under license/ technology collaboration agreements with phased indigenization: While notifying the minimum local content, Nodal Ministries may make special provisions for exempting suppliers from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who holds intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in local content.

14. Powers to grant exemption and to reduce minimum local content: The administrative Department undertaking the procurement (including procurement by any entity under its administrative control), with the approval of their Minister-in-charge, may by written order, for reasons to be recorded in writing,

- a. reduce the minimum local content below the prescribed level; or
- b. reduce the margin of purchase preference below 20%; or

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- c. exempt any particular item or supplying entities from the operation of this Order or any part of the Order.

A copy of every such order shall be provided to the Standing Committee and concerned Nodal Ministry / Department. The Nodal Ministry / Department concerned will continue to have the power to vary its notification on Minimum Local Content.

- 15. **Directions to Government companies:** In respect of Government companies and other procuring entities not governed by the General Financial Rules, the administrative Ministry or Department shall issue policy directions requiring compliance with this Order.

- 16. **Standing Committee:** A standing committee is hereby constituted with the following membership:

Secretary, Department for Promotion of Industry and Internal Trade—Chairman
Secretary, Commerce—Member
Secretary, Ministry of Electronics and Information Technology—Member
Joint Secretary (Public Procurement), Department of Expenditure—Member
Joint Secretary (DPIIT)—Member-Convenor

The Secretary of the Department concerned with a particular item shall be a member in respect of issues relating to such item. The Chairman of the Committee may co-opt technical experts as relevant to any issue or class of issues under its consideration.

- 17. **Functions of the Standing Committee:** The Standing Committee shall meet as often as necessary, but not less than once in six months. The Committee

- a. shall oversee the implementation of this order and issues arising therefrom, and make recommendations to Nodal Ministries and procuring entities.
- b. shall annually assess and periodically monitor compliance with this Order
- c. shall identify Nodal Ministries and the allocation of items among them for issue of notifications on minimum local content
- d. may require furnishing of details or returns regarding compliance with this Order and related matters
- e. may, during the annual review or otherwise, assess issues, if any, where it is felt that the manner of implementation of the order results in any restrictive practices, cartelization or increase in public expenditure and suggest remedial measures
- f. may examine cases covered by paragraph 13 above relating to manufacture under license/ technology transfer agreements with a view to satisfying itself that adequate mechanisms exist for enforcement of such agreements and for attaining the underlying objective of progressive indigenization
- g. may consider any other issue relating to this Order which may arise.

- 18. **Removal of difficulties:** Ministries /Departments and the Boards of Directors of Government companies may issue such clarifications and instructions as may be necessary for the removal of any difficulties arising in the implementation of this Order.

19. **Ministries having existing policies:** Where any Ministry or Department has its own policy for preference to local content approved by the Cabinet after 1st January 2015, such policies will prevail over the provisions of this Order. All other existing orders on preference to local content shall be reviewed by the Nodal Ministries and revised as needed to conform to this Order, within two months of the issue of this Order.
20. **Transitional provision:** This Order shall not apply to any tender or procurement for which notice inviting tender or other form of procurement solicitation has been issued before the issue of this Order.



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