



Corrigendum-I

Tender Ref: TPCODL/P&S/1000000106/ 2021-22

With reference to the Tender No- TPCODL/P&S/1000000106/ 2021-22 for conversion of OH line to UG cable system around Lord Jagannath temple and connecting road, Puri following corrigendum/ pre bid clarification is hereby issued,

The last date and time of receipt of Bids through ARIBA E-Tender Portal has been extended to 18.10.2021 till 15.00 Hours.

The other terms and condition of the above tender remain unaltered.

Approved manufacture list

Sr.No	Description of Material/ Equipment	Manufacture Name	
	11KV RMU	ABB, Siemens, Schneider, Lucy electrical, EATON, C-Sec	
	11/0.433KV Compact substation	Schneider, ABB, Siemens, Raychem.(TRF- Raychem, ABB, United Trf, Voltamp,Kirloskar)	
	FRTU	Schneider, ABB, Siemens,	
1	PSC Pole	Konark / Metro poles/ Baba Akhandalmani / Balaji PSCC- Khurda/Sai Saran - Anugul/ Gautam Cements , Jharsuguda	
2	WPB / RSJ Pole	Dharam INDUSTRIES/ Vijay Transmission /Supreme	
13	HT XLPE Cable (11KV & 33KV)	M/s Gupta Power M/S GEMSCAB Sterlite Torrento	M/s KEI M/S M/s
35	LT XLPE Power Cables	KEC International Universal Cables Limited Finolex Nicco Corporation Limited Polycab Ravin Cables Gemscab Industries KEI M/s Gupta power KEI CCI	
4	Feeder pillar	1) AMAR RAJA Popular switchgear 4) Macedon Engineering	2) 3) Havells 5) LAN
8	LT AB cable	M/s Gupta power Infrastructure, Khurda M/s Luminous Cable. , Howrah Havells India Raychem RPG Paramount	M/s M/s M/s
5	Earthing Coil	M/s Hightension Electrical equipment pvt. Ltd. , Howrah Rahul electrical, Howrah, Forging,Howrah	M/s Industrial
6	GI wire , Stay wire , Barbed wire	M/s Hightension Electrical equipment pvt. Ltd. , Howrah Rahul electrical, Howrah, Forging,Howrah	M/s Industrial
7	Hardware fittings	M/s Hightension Electrical equipment pvt. Ltd. , Howrah Rahul electrical, Howrah, Forging,Howrah	M/s Industrial KSE electrical
9	SUPPLY OF HT/ LT ABC HARDWARE	KSE ELECTRICAL RAYCHEM RPG SICAME INDIA 3M ELECTRO & COMMUNICATION	

Sr.No	Description of Material/ Equipment	Manufacture Name
10	HT & LT stay set, V cross arm & clamp	M/s Hightension Electrical equipment pvt. Ltd. , Howrah Rahul electrical, Howrah, Forging,Howrah
11	PVC wire	M/s Gupta power (Rhino), Khurda Havell
12	GI Pin	M/s Supreme , Howrah, Shakti enterprises Pvt.Ltd. KSE
14	12KV, 10KA Polymeric Lighting ARRESTOR	Raychem/OBLUM/New Aquria
15	AB SWITCH/ HG Fuse	Pramoda Engineering works/Ultima Switchgears/High Tension Electricals, Howrah/
16	PVC Insulated Power and control cables	POLYCAB/ GPIL/ FINOLEX / Universal/ Havels India Ltd. / KEC International Ltd. / GEMSCAB/ Paramaount communication ltd.
18	Cable jointing Kit	RPG Raychem /3M / Cell pack
19	STEEL structure	TATA/ SAIL/RINL/ Jindal steel & Power
20	11KV Polymer Pin INSULATOR	Rashtriya Chemical/ Hindustan Chemical / Scenario/Hub International/Adinath Industries/ Prime Insulator/ Imperial proclein Pvt Ltd
21	11KV Polymer Disc INSULATOR	Rashtriya Chemical/ Hindustan Chemical / Scenario/Hub International/Adinath Industries/ Prime Insulator/ Imperial proclein Pvt Ltd
22	Pole CLAMP / CONNECTORS	M/s Hightension Electrical equipment pvt. Ltd. , Howrah Rahul electrical, Howrah, Forging,Howrah
23	GI Bolts & Nuts	NEXO/ GKW / ASP / Maheswari (P) Fasterns & Bright Pvt. Ltd./ Agarwal Fastners/ Techman India / Millenium structurals (India) Ltd. / Strelling Bolts Pvt. Ltd. / Pankaj International/ Ravi Engineers / Precission fasterns ltd / Deepak Fasners Ltd/ Fit Right Nut and Bolts Pvt Ltd./ Bharat Industries/ Karamtara Fastners Pvt Ltd./ Bolt Master (india) / JC fastners / DFL international / Bharati Overseas / Remax India/ Forex Fastners / Sudhir Automative industries / Av forgings / Anshika Fastners / Durafast Automatives/ HR steel industries / LPS Bossard / Paramhari engineers / Turbo Industries/ Roshan Impex/ Istiva Fastners / Garg & Fastners
24	GI PIPE	TATA/JINDAL
25	GI Earth Wire	Aaarti Steels Ltd. I Manohar Lal Hira Lal Ltd/ Ramswarup Industrial Corporation/ Usha Martin Industries/ Tate Iron & Steel Ltd/ Ratlam Wires Pvt Ltd/ Bharat Wire Ropes Ltd/ Kataria Wires Pvt Ltd/ Bajrang Wires Products Pvt Ltd/ RK Wire Product Ltd / Balaji Wires Pvt Ltd/ GK wires/ GPIL / UIC Udyog Limited / Kartika Wires (P) Ltd.
26	MCB	L & T / ABB / SIEMENS/ MDS/ HAVELLS / INDOASIAN / Standard Electrical / Schneider / Legrand / Indo kopp / CGL / M&G / MERLIN GERIN / C&S Eiectric
27	ACB/MCCB	L & T / SIEMENS/ MERLIN GERIN / GE Power Control/ ABB/ CGL / M&G /KM/ C&S Electric / BCH Electric/ ERA Electricals / HPL India / Soaceae Switchaeears / Schneider Electric
28	PVC WIRES	L & T / FINOLEX / ANCHOR / HAVELLS

Sr.No	Description of Material/ Equipment	Manufacture Name
29	SWITCHES	ANCHOR/ ABB/ CONA / HAVELLS / INDOASIAN / Schneider
30	FIRE FIGHTING EQUIPMENT	MINIMAX / CEASE FIRE /Kanadia Fyr Fyter Pvt. Ltd/ Aska Equipment Ltd / NITIN / LIGHTEX / Safex Services Ltd / Zenith
31	CONDUCTOR	APAR / GPIL / Lumino / Cabcon/ Polycab wires
32	V Cross Arm	M/s Hightension Electrical equipment pvt. Ltd. , Howrah M/s Rahul electrical, Howrah, M/s Industrial Forging,Howrah
33	Power cable/Control cable	Cabcon India Pvt Ltd., Howrah / Premier Cable / Vikas cable / RTS Power Corporation, Kolkata/ M/s Gupta Power
34	Insulated Piercing connector	Sicame India connector / KSE/ Raychem
36	Control Cables	KEC International
		Universal Cables Limited
		Finolex
		Torrent
		Nicco Corporation Limited
		Ravin Cables
		Reliance Engineers
		Thermo Cables
		M/s Gupta Power
		Cords Cable Industries Ltd
36		Gemscab Industries
37	HT & LT Cable termination & Jointing kit	3M
		RAYCHEM
38	SUPPLY OF BIRD CAP	PLASTOCHEM
		RAYCHEM RPG
39	SUPPLY OF BIRD GUARD	ASIAN LOTO CORPORATION
		DHARAM INDUSTRIES
		HUGHES & HUGHES CHEM
		MANGAL ENTERPRISES
		NAMDHARI INDUSTRIAL TRADERS
		RAHUL POWERTECH
		YOGAYATA ELECTRIC
40	SUPPLY OF CABLE TIE	MANGAL ENTERPRISES
		NOVOFLEX MARKETING
		RIPKON TRADEWINGS
Note : Any other OEM the bidder wish to use apart to approved manufacturer list same need to be approved by TPCODL.		

Pre bid queries response

SITC (Supply, installation, testing & commissioning) for Conversion of existing overhead line to UG cable system around Lord Jagannath Temple and connecting roads, Puri
Tender Enquiry No.: TPCODL/P&S/1000000106/2021-22

PREBID QUERIES							
S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
TECHNICAL							
1	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	198 of 293	RMU Configuration	Configuration	As per tender specification Pt no. iii. 4 Way with 2CB (For Indoor and Outdoor application): Both side extensible - 2 Nos. 630A Load Break Switches + 2 Nos. 630A Feeder Vacuum Circuit Breakers with self-powered O/C + E/F relays + shunt trip coil (24V DC) + 1 No. Electronic Fault Passage indicator in left side LBS in each RMU	We presume that configuration is as 4way RMU Outdoor Type 2LBS + 2VCB. Kindly confirm the following points for the same : 1. Whether RMU is Extensible or Non Extensible ? 2. LBS is motorized or manual ? 3. VCB is motorized or manual ? 4. FPI is required in one LBS or Both the LBS ? 5. RMU is with FRTU or Without FRTU ?	1. RMU will be Extensible type on either side. 2. LBS is motorized . 3. VCB is motorized . 4. FPI is required in one LBS . 5. FRTU taken as separate line item in Tender.pls refer tender BOQ
2	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	199 of 293	1.2.1	General Details	The mimic board shall be provided with IP2X degree of protection for Indoor RMUs and protection for Outdoor RMUs shall be minimum IP 54(Main door closed). Cable compartment shall be IP54.	Mimic & Cable door compartment with IP54 shall be achieved with outdoor enclosure door close condition. Kindly confirm the requirement.	ACCEPTED
3	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	200 of 293	1.2.8	General Details	Mechanical interlocking systems shall prevent access to the operating shaft to avoid all operator errors such as closing the earth switch when the Load break switch is closed or when cable is charged	Cable charge indication is detected by VPIS system. Mechanical or Electrical interlock between VPIS & ES is not possible to provide. Kindly Confirm.	Accepted
4	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	200 of 293	1.2.9	General Details	All panel covers shall be provided with anti-vandal screw bolts so that opening of panel covers is only possible with special tools, which shall be provided by the Bidder as mandatory spare/tool.	Panel covers associated with live parts are not possible to access without OEM operation handle (supplied along with RMU) & following proper interlock process. Kindly Confirm.	ACCEPTED
5	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	201 of 293	1.2.11	General Details	Three way with two CB configuration	This configuration is not applicable for this tender. Kindly confirm.	Not part of this tender
6	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	201 of 293	1.4.1	Incomer Load Break Switches (LBS)	The position of the power contacts and earthing contacts shall be clearly visible on the front of the RMU	The position of the power contacts are not possible to view on mimic. However the position of the LBS & ES is possible to view on the mimic. Kindly confirm.	ACCEPTED
7	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	202 of 293	1.4.2	Incomer Load Break Switches (LBS)	Electrical /Mechanical Interlock should be provided to the Earth switch it should not be Close when cable is back charged	Cable charge indication is detected by VPIS system. Mechanical or Electrical interlock between VPIS & ES is not possible to provide. Kindly Confirm.	ACCEPTED
8	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	202 of 293	1.5.2	Circuit Breaker For Transformer / Local Feeder Control	The position of the power and earthing contacts shall be clearly visible on the front of the RMU.	The position of the power contacts are not possible to view on mimic. However the position of the LBS & ES is possible to view on the mimic. Kindly confirm.	ACCEPTED
9	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	203 of 293	1.5.9	Circuit Breaker For Transformer / Local Feeder Control 1.5.9	The required motor for this operation shall be delivered separately to stores (at a later date) and shall be compatible with older versions of RMUs already working within the TPCODL network	If the RMU configuration is motorized, LBS & VCB motor units will be factory fitted & supplied If the RMU requirement is manual, no separate motor unit will be considered to supply to stores. Kindly confirm the exact requirement.	RMU VCB & LBS is motorised & factory fitted
10	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	203 of 293	1.5.17	Circuit Breaker For Transformer / Local Feeder Control	In control cabinet the Terminal block shall have AC input wiring provision and MCB provision for incoming of LT AC supply	We presume that RMU supplier has to provide TB for AC. Supply of MCB, 230V AC 50HZ shall be arranged by TPCODL externally. Kindly confirm.	230V AC will be supplied by TPCODL
11	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	204 of 293	1.5.21	Circuit Breaker For Transformer / Local Feeder Control	Electrical /Mechanical Interlock should be provided to the Earth switch it should not be Close when cable is back charged.	Cable charge indication is detected by VPIS system. Mechanical or Electrical interlock between VPIS & ES is not possible to provide. Kindly Confirm.	Accepted
12	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	204 of 293	1.5.22	Circuit Breaker For Transformer / Local Feeder Control	The CT settings shall be adjustable between 60 - 400/1 Amp for outgoing feeder and transformer in relay	We presume that CT ratio for both the VCB is 60-400/1A & as per "Clause 1.5.24" VA Burden is 2.5VA & Class: 5P10. Kindly confirm.	CT ratio for the VCB is 60-400/1A & as per "Clause 1.5.24" VA Burden is 2.5VA & Class: 5P10
13	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	205 of 293	1.5.25	Circuit Breaker For Transformer / Local Feeder Control	The CTs of 5P20 Class shall be employed. CT ratio shall be 200/1 (Further CT ratio may finalized during detailed engineering)	This statement is contradicting with "Clause 1.5.22 & 1.5.24". Kindly confirm the exact requirement.	CT ratio for the VCB is 60-400/1A & as per "Clause 1.5.24" VA Burden is 2.5VA & Class: 5P10

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
14	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	205 of 293	1.5.25	Circuit Breaker For Transformer / Local Feeder Control	The transformer ratings which are to be controlled by the breaker are as follows: 500kVA to 2000kVA.	Transformer Auxiliary protections such as WTI, OTI, Bucholz, PRV to be considered or not. Kindly confirm the requirement.	Shunt Tripping coil shall be given as per TPCODL Specification there to trip the VCB for WTI, OTI& PRV
15	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	205 of 293	1.6.1	Bushings and Cable terminations	The termination bolt shall be M16 only for TPCODL ODISHA supplies for all bushings & M12 for TPCODL ODISHA supplies	This requiremnt will be as per OEM standard & Type tested design. Kindly confirm.	The termination bolt shall be M16 only for TPCODL ODISHA supplies for all bushings for connecting 11KV cable 3CX40sqmm
16	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	206 of 293	1.6.8	Bushings and Cable terminations	a cable test rod (to be quoted as spare)	Not in scope of RMU supplier. Kindly confirm.	ACCEPTED
17	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	206 of 293	1.6.9	Bushings and Cable terminations	The cable cover door shall be pad lockable and shall be Tamper and Arc proof.	Since the cable cover door is arc proof, it is not pad lockable. However ES is having provision for padlocking after ES put into on position. Kindly confirm this requirement	ACCEPTED
18	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	206 of 293	1.6.11	Bushings and Cable terminations	Locking provision of cable compartment door to be provided in case of any switch/CB is at earth position to avoid pilferage	Since the cable cover door is arc proof, it is not pad lockable. However ES is having provision for padlocking after ES put into on position. Kindly confirm this requirement	ACCEPTED
19	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	207 of 293	1.7.4	Earthing:	Two nos. body earthing bolts of M12X70 mm to be provide on the extended bus-bar.	Two no's body earthing bolts shall be provided as per OEM standards & Type tested design size. Kindly confirm.	Accepted but it should able withstand rated fault current & calculation sheet is required to submit
20	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	207 of 293	1.8	Voltage indicator lamps and phase comparators	The auxiliary contacts in VPIS shall be there should be electrical interlock of cable presence indicator and operation of earth switch in RMU incomer cable compartment of LBS.	Cable charge indication is detected by VPIS system. Mechanical or Electrical interlock between VPIS & ES is not possible to provide. Kindly Confirm.	Accepted
21	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	1.11.2	Remote Control of the RMU:	Preferred communication protocol for FRTU shall IEC-60870-5-104.	We presume supply of FRTU is in scope of RMU Supplier. Kindly confirm the requirement.	FRTU is considred as separate line item in Tender.pls refer tender BOQ
22	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	1.11.2	Remote Control of the RMU	(A flag is required for series and shunt coil actuation).	Fault trip flag is an inbuilt LED indication in numerical relay. No separate mechanical flag is considered. Kindly confirm.	accepted
23	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	1.11.2	Remote Control of the RMU	Also, the PCB of motor should be covered by anti-tracking agent. There should be relay with timer instead of only relay, which is used in the latching circuit.	Motor kit for RMU is not PCB design hence no relay or timer is considered for motor kit. Kindly confirm.	accepted
24	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	1.11.2	Remote Control of the RMU: 1.11.2	Suitable unlatching system to be provided to prevent mal operation of motor in case of any latched command/ non executed command at RMU (case like fuse failure etc.)	Motor Circuit is protected with Micro Switch & MCB for overload and other mal functions. Kindly confirm.	accepted
25	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	1.11.2	Remote Control of the RMU	The bidder shall quote the cost of field RTU (FRTU) separately with all technical details for acquisition of the signal as described in Annexure-1.	We presume supply of FRTU is in scope of RMU Supplier. Kindly confirm the requirement.	FRTU is considred as separate line item in Tender.pls refer tender BOQ
26	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	211 of 293	1.12	Paint	The enclosure of the RMU shall be painted with shade light Grey, i.e., AL 7032.	As per OEM standards Front cover : RAL-7035 Cable cover: RAL-7035 Enclosure: IS5 of shade 632 (Thickness 60-80 microns). Kindly confirm.	accepted
27	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	211 of 293	Type Test Report	Type Test Report	Type test should have been conducted in certified test laboratories during the period not exceeding 5 years from the date of Permission.	Offered RMU's are designed & type tested as per applicable IEC standards.Type test reports to be considered for validation as per new CEA guidelines released in May 2020 & Extension to the same in Sept 2021. Kindly confirm.	Type test report validation is allowed up to 10Years if there is not design change.However undertaking is required in bidder letter head .
28	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	211 of 293	Type Test Report	Type Test Report	12. Dimensional and Visual Checks.	Dimension and visual checks are offered in routine/FAT test. This is not type test requirement. Kindly confirm.	accepted
29					Warranty	Please confirm the warranty to be considered for this product & tender package.	Warranty is 48Months from Date of comissioning & 60Months date of supply whichever is earlier
30	TPCODL-ENGG. -001 46.0 HDPE PIPE	183 of 293		3 HDPE Pipe - Description	HDPE PIPE, PE-80, PN-8	There is mismatch between BOQ & Spec attached particularly on 'PN'. BOQ refers PN10 & Spec refers 'PN8'. Please clarify excat requiremnt to consider PN10 or PN8.	HDPE PE80, PN-8
31	TPCODL-ENGG. -001		General	General Details		Kindly Provide list of approved makes.	Attached
32	TPCODL-ENGG. -001		General	General Details		Kindly provide single line diagram and layout drawings of given system.	Bidder is requested to do site visit to understand scope of work& collect the SLD from Division office

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
1	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	252 of 293		Specific requirements of control & Protection circuits	There must be separate supply from any one ACDB outgoing phase busbar tapping for auxiliary supply to one 5/15A sockets and this is to be marked with name plate.	Kindly clarify.	Not required for the Tender
2	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	253 of 293		Specific requirements of control & Protection circuits	The LT breaker relay testing kit to be provided with each PSS.	Not in scope of supply of OEM of CSS. Kindly Confirm	Not required for the Tender
3	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	246 of 293		Distribution Transformer	Total Max losses at 50% Loading	Kindly confirm losses shall be as per ECBC 2017 or standard losses IS tolerance.	To be given as per ECBC 2017
4	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	246 of 293		Distribution Transformer	Total max Losses (Cu only) losses at 100%	Kindly confirm losses shall be as per ECBC 2017 or standard losses IS tolerance.	To be given as per ECBC 2017
5	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	214 of 293		General Technical Requirement	To be given as per ECBC 2017	Transformer compartment shall be IP23 & we are giving indoor type 3 way RMU, 21kA/3sec (2nos 630A motorised Load Break switch & 1 no 630A Manual Circuit Breaker). Kindly confirm	Accepted however RMU & VCB shall be motorised
6	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	220 of 293		Bushing and cable Termination	RMU : For HT side termination, tinned Copper busbar shall be provided with AI Lugs suitable forconnecting to 11 kV 3C x 400 sq.mm to Isolator and 3Cx300 sq mm AL XLPE cable to Breaker compartment.	For HT side we will provide bushing for cable termination & connection between RMU to Transformer through Cable 1Cx185sqmm AL XLPE cable to Breaker compartment. Kindly Confirm.	Accepted.
7	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	225 of 293		Windings	Primary and secondary windings shall be constructed from high- conductivity, Double Paper Covered (DPC) copper conductor. The winding shall be designed for better voltage regulation and mechanical strength. LV winding shall be such that neutral formation will be at top. The coil shall be circular in shape and their construction shall be such that there is no possibility of any distortion under likely conditions of service. Inter layer insulation both for HV and LV windings shall be Epoxy dotted Kraft/Kraft paper and pressboard of standard make or any other superior material subject to approval of Purchaser shall be used. All spacers, axial wedges/runners used in windings shall be made of pre-compressed solid press board. In case of cross-over coil winding of HV, all spacers shall be properly sheared and dovetail punched to ensure proper locking. All axial wedges/runners shall be properly milled to dovetail shape. Operations shall be carried out in such a way, that there should not be any burr and dimensional variations. Proper bonding of inter layer insulation with the conductor shall be ensured. Test for bonding strength shall be conducted as per standards. The dimensional tolerances for windings shall be within limits and as specified in the GTP. All turns of windings shall be adequately supported to prevent movement. The core/coil assembly shall be securely held in position to avoid any movement under shortcircuit conditions. The joints in the winding shall be avoided but if it is necessary then, these shall be properly brazed and the resistance of the joints shall be less than that	We are quoting dry type transformer and given specification is for Oil type Transformer so it is not applicable for Dry type Transformer. Kindly confirm.	Requirement is Dry type TRF.It is not applicable

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8	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	225 of 293		Windings	The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to 2.5%	We are quoting dry type transformer and given specification is for Oil type Transformer so it is not applicable for Dry type Transformer	The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to 2.5%
9	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	228 of 293		Marshalling Box	All transformers shall have standard marshaling box. The Links in these should be of disconnecting type and should have facility to hold ring type of lugs. All links shall be droppable type ASEA links. Marshaling Box shall be suitably located not to obstruct the doors & power cables. Sufficient extra links to be provided for control wiring. Knock outs to be provided in marshaling box for control cabling. Heaters shall be provided in the marshaling Box and shall be fitted in proper location without creating any obstruction to other equipment in MB.	Marshalling Box is not required for PSS application	Accepted. Accepted, however all Terminals of WTI & PSS limit switch TB shall be provided in proper location
10	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	230 of 293		Fittings	<ul style="list-style-type: none"> Winding temperature indicator complete with thermostat and annunciator (Alarm and trip) Diagram, rating plate, terminal marking plate should be non-detachable. Separate plate for guarantee period & date of dispatch. Two earthing terminals with lugs at the centre of the bottom channels supporting the transformer. Lifting lugs for main tank & top cover. HV bushings – 3 Nos. LV bushings – 4 Nos. Stiffener angle HV connection with adequate CU bus bar. LV side connection with adequate Cu bus bar suitable to connect 1.1KV XLPE cables 4CX 300 Sq.mm cables for further distribution. Marshalling box with WTI on HT side. HV and LV cable terminal box should be at 180° and shall be properly supported. Separate neutral bushing with earth bar supported on insulation. Neutral Bushing CT : 2000/5 for 1000, 750 and 630 KVA. Inspection Cover & sufficient ventilation from bottom side also. 	1) We will provide only WTI with Alarm & trip (Loose), Liftings lugs fir Tank cover only & HV connection suitable cable	Accepted
11	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	226 of 293		Terminal arrangement for incoming & outgoing	<p>RMU : For HT side termination, tinned Copper busbar shall be provided with Al Lugs suitable for connecting to 11 kV 3C x 300 sq.mm for isolator or 1Cx185 sq mm AL XLPE cable for Breaker.</p> <p>LT ACB: For LT side termination, AL bus bar of 2000A capacity having provision for connecting 4CX300 sq mm AL XLPE cable. Colour sleeves to be provided on busbars for easy identification.</p> <p>All control cables shall be provided with identification tags.</p>	2) Marshalling Box is not applicable in PSS application and we will not provide inspection cover	Accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
12	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	237 of 293		Spares & Accessories	SPARES, ACCESSORIES & SPECIAL TOOLS/GAUGES	For HT side we will provide bushing for cable termination & connection between RMU to Transformer through Cable 1Cx185sqmm AL XLPE cable to Breaker compartment.	Accepted
13	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	215 of 293		General construction	Name plate "Energy Meter" should be given on PSS LT Panel side door for indicating energy meter inside.	Kindly provide list of mandatory spares as it is not given in specifications	Mandatory spare is not required in the Tender
14	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	215 of 293		General construction	g) There must be three separate sources of supply for protection, Auxiliary & external lighting circuit.	We can Provide the 'Space for Provision' of Energy Meter with Measuring CT's. Kindly confirm supply of energy Meter is in TATA Power scope	Supply of energy meter will be done by TPCODL
15	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	215 of 293		General construction	Outgoing 440V circuit 630A MCCB's must be mounted horizontally on LV switchgear panel.	External Lighting is not in CSS supplier scope. Internal Supply for Protection and Auxiliary supply as per earlier supplied CSS. Kindly confirm.	accepted
16	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	216 of 293		General construction - Paint	PENTON E2727C	We request you please elaborate / clarify the requirement	queries not valid
17	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	217 of 293		General construction: Extensible canopy to be provided on both sides of the PSS	As per safety norms the arc suit of the person operating the system should not get wet during rainy season. Sample drawing is as shown below.	In tender specs we found various paint shade like Ral 7032, Pentron E2727C. Please confirm on this paint shade	E2727C (Blue)
18	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	220 of 293		11KV RMU - Circuit breaker for Transformer control	CIRCUIT BREAKER FOR TRANSFORMER CONTROL: There should be provision for testing of cable without opening the front door by suitable arrangements. In case cables are to be tested with front door open, doors shall have interlock such that doors can be opened only with earth switch in closed position & a cable test rod has to be provided which can be fixed on the terminations to facilitate testing. Termination boots as approved by Tata Power should have a proper opening to facilitate the testing. The opening should be covered by means of removable protection cap.	We propose to provide foldable extended canopy in all four sides as shown in below figure. However as per clause it is mentioned extended canopy to be provided on both sides. Kindly confirm canopy to be provided on 2 sides or all 4 sides. if it two sides kindly confirm which two sides.	Canopy is not required , however it can be provided on RMU & LT Side compartment
19	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	220 of 293		Bushing and cable Termination	For HT side termination, tinned Copper busbar shall be provided with Al Lugs suitable for connecting to 11 kV 3C x 300 sq.mm to Isolator and 1Cx185 sq mm AL XLPE cable to Breaker compartment.	Kindly confirm supply of cable test rod is in our scope or in the scope of tata power.	Cable Test is not required
20	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	228 of 293		Temperature Indicator	Winding Temperature Indicator (WTI) for measuring the hot spot temperature of the winding shall be provided. It shall be suitable for control room as well as marshalling box installation and is built for long and trouble free operation under extreme conditions of service associated with the Cast resin Dry type transformers. It shall comprise of the following devices/features: a) RTD sensors shall be suitable to allow the user to monitor maximum six Critical Temperature parameters on the Transformer. Routing of sensing cables shall be done through cable turf with necessary tying through nylon tie belts.	Please confirm supply of termination kit is in our scope if so please confirm the quantity.	HT Cable Termination kit suitable for for 3CX400Sqmm XLPE is to be supplied.Approved make Raychem, 3M, Cell pack

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
21	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	215 of 293		Indoor Enclosure	The enclosure shall be made of minimum 2-3 mm thick GI sheet with base of 4 mm (min).	4 No's RTD will be provided with Digital Scanner as general practice Kindly confirm.	Accepted
22	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	215 of 293		Indoor Enclosure	Transformer compartment as IP33	We have offered OUTDOOR duty CSS . The base of the CSS shall have 4 mm thickness HRCA base frame. Enclosure load bearing members shall have 2 mm thickness of GI sheet steel and Non Load bearing members of the enclosure shall have 1.5 mm thickness of GI sheet steel. Kindly Confirm	Accepted
23	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	216 of 293		Indoor Enclosure	bidder shall provide provision for remote monitoring of status of RMU, fault passage indicator, LT ACB & MCCBs.	Degree of Protection for Transformer compartment shall be IP23 for the rated output KVA. This is inline with Bidder make CSS Type tested design and inline with last executed order for Tata Power Mumbai. Kindly confirm.	Accepted
24	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	216 of 293		Earthing	All metallic components of Sustation shall be earthed to common earth conductor of size 50x6 tinned Cu or 65 x 10 mm GI	We are offering Potential Free Contacts for status monitoring only. RMU is manual operation. Kindly confirm.	Accepted
25	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	216 of 293		paint	Sufficient quantity to touch-up paint shall be furnished for application at site. The enclosure shall be with shade PENTON E2727C	Over all internal earthing of CSS shall be 50 x 6 Copper. Kindly confirm	Accepted.However calculation sheet shall be provided for withsatnding 21KA
26	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	217 of 293		Extensible canopy to be provided on both sides of the PSS	Extensible canopy to be provided on both sides of CSS	CSS Enclosure shall be Powder coated with PENTON E2727C (Blue). Additional quantity of touch-up paint not considered in our scope. Kindly confirm.	Accepted
27	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	218 of 293		RMU	Outder body shall be made of GI sheet steel, minimum 2mm thick with 3 mm thick gland plate.	Same is not envisaged in our offered design of CSS. We have supplied more than 2000 Nos. CSS across India without any additional canopy. Request you to accept the same.	Accepted
28	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	218 of 293		RMU	The RMU Body shall be earthed with 25 x 6 Sq.mm Tinned copper strips	Outder body shall be made of out of CRCA material of thickness 2mm and shall have 3 mm thick gland plate.	Accepted
29	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	218 of 293		RMU	Transparent covers	The RMU Body shall be earthed with 30 x 4Sq.mm copper strips. This is inline with type tested design. Kindly Confirm	Accepted
30	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	218 of 293		RMU	Interlocking	The earth position shall be indicated with the help of true position indication system without transparent covers.	accepted
31	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	219 of 293		Incomer Load Break Switches (LBS)	The switch and earthing switch operating mechanism shall have mechanical endurance of at least of 5000 operations	We shall provide the padlocking facility for earth switch & indication system shall be provided for Voltage presence in incoming cable. Kindly confirm.	accepted
32	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	219 of 293		Incomer Load Break Switches (LBS)	The position of power and earthing contacts shall be clearly visible on the front of the RMU	The switch and earthing switch operating mechanism shall have mechanical endurance of 1000 operations. Kindly confirm.	accepted
33	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	219 of 293		Incomer Load Break Switches (LBS)	The setting shall be adjustable between 0 to 75 Amp.	Active Circuit is inside sealed Tank hence its true indication shall be shown on the front mimic of the RMU. Kindly confirm	accepted
34	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	219 of 293		Circuit breaker for Transformer control	The relay shall be as per Tata Power approved make	The setting shall be adjustable between 15 to 60 Amps	accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
35	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	219 of 293		Circuit breaker for Transformer control	RMU Protection CTs installed in Breaker compartment of RMU should be of Cast resin Type or as per Tata power approved Make. The CTs need to be mounted on bushing or externally mounted over the insulated plate . The ID of CT should be suitable to 1C X 185 sqmm 11KV cable	The offered Relay shall be of Bidder Make of Model No: REJ603 as per our recent supplies to Tata Power Limited. Kindly confirm.	accepted
36	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	219 of 293		Circuit breaker for Transformer control	There should be a provision for testing of cable without opening the front door by suitable arrangements	As the CT shall be for breaker module and offered RMU shall ne fitted inside CSS hence the CT ID shall be suitable for 95Sqmm cable. CT make shall be Ericon . Kindly confirm.	accepted
37	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	219 of 293		Circuit breaker for Transformer control	There should be provision of hinged doors in the RMU.	There shall be provision for testing of cable by opening cable compartment but there shall be sufficient interlocks so that LBS cable not be ON when cable compartment door is in OPEN position. Kindly confirm.	accepted
38	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	221 of 293		Safety of People	Internal Arc fault IAC-AB as per IEC62271-202	Hinged door are not applicable for RMU as RMU is indoor type and fitted inside CSS HT compartment. Removable door shall be provided as per new design. Kindly confirm	accepted
39	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	221 of 293		paint	RMU - RAL 7032 or 631 as per IS-5. Sufficient quantity of touch up paint shall be furnished for application at site	IEC 62271-202 is applicable for CSS. RMU is type tested as per IEC 62271-200. Kindly confirm	Accepted
40	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	221 of 293		General Construction	The transformer shall be suitable for service with fluctuations in supply voltage upto plus 12.5% to minus 12.5%.	The RMU body shall be painted with shade RAL 7035. Additional quantity of touch-up paint not considered in our scope. Kindly confirm	Accepted
41	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	221 of 293		Indicator	Temperature Indicator	As per IS 11171. Kindly confirm	Accepted
42	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	225 of 293		Windings	Windings	Winding temperature indicator shall be pecon make model no. TR7576-C provided. Kindly confirm	accepted
43	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	225 of 293		Windings	WINDINGS: The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to 2.5%.	LV winding shall be prepeg with top and bottom resin mixture and HV shall be fully casted for dry type transformers. Insulation class shall be Class H with temperature rise 115 degree C as per IS 11171. Kindly confirm	
44	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION			FASTENERS:	FASTENERS	The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to \pm 5%. Kindly confirm.	The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to 2. 5%.
45	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	247 of 293		Transformer Losses	1000KVA Max losses at 50% Loading at 75degree (watt) - 2790 watt Max losses at 100% Loading at 75degree (watt) -7700 watt	Fastners shall be stainless steel. Kindly confirm	Accepted
46	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION				Transformer shall be painted with shade 631 as per IS:5 and RAL 7032 as applicable.	mentioned losses in Specs are Of Oil type transformer, for Dry type we can offer as per ECBC 2017 revised 2018 edition i.e.	Losses to be provided as per ECBC 2017
47	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	226 of 293		Termination arrangement for Incoming & Outgoing	RMU- Tinned copper Busbar shall eb provided. LT- AL busbar of 2000A capacity having provision for connection 4C x 300Sqmm AL XLPE cable.	Max losses at 50% Loading at 75degree (watt) - 4500 watt	Losses to be provided as per ECBC 2017

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
48	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	226 of 293			Copper busbar between RMU & Transformer and Transformer & LT panel.	Max losses at 100% Loading at 75degree (watt) -12000 watt. However as per Pre Bid reply we are confirming the require losses of Specs as per GTP enclosed. We do not envisaged any special test/ Type test for the same.	Losses to be provided as per ECBC 2017
49	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	227 of 293		Earthing connection	50x 6mm Cu or 65 x 10mm GI	Loss capitalization not envisaged. Kindly Confirm.	Loss capitalisation is not required
50	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	231 of 293		LV Compartment/ 231 of 293	The frame work covered from the front with GI sheet of thickness not less than 2mm	We have offered Transformer inside Transformer compartment of CSS enclosure having shade nearer to PENTON E2727C Blue. Kindly confirm.	Accepted
51	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION	231 of 293		ACB and MCCB with Busbar	The neutral Busbar shall be of same size as phase busbar. The neutral busbar shall be suitable to carry 2000Amps.	Offered RMU is safe ring type with Bushing provided on HT side and suitable to terminate cable 11KV 3C x 300Sqmm or 1C x 185sqmm AL XLPE cable. For LT side we have provided 630A MCCB after ACB as per Clause No. 8.1.1. hence direct cable termination after ACB not considered. As all outgoing MCCB are 3P hence 3C x 400 Sqmm cable termination possible at MCCB outgoing.	HT side bushing shall be suitable to 11KV 3CX400sqmm cable.other queries are accepted
52	TPCODL-ENGG. -001 49.0 PACKAGE SUBSTATION			Type Test Certificate/235 of 293	Type Test	Cable Boxes not applicable for Transformers being used in CSS application. Hence not considered. Wire mesh shall be provided on louvers on door. Interconnection between RMU and Transformer shall be using 1C 95Sqmm Cu XLPE Cable and Between Transformer and LT Panel using Copper Busbar of rating 2500A. kindly confirm.	Accepted
53						Over all internal earthing of CSS shall be 50 x 6 Copper. Kindly confirm.	Accepted.supporting calculation is required
54						The LT panel construction shall be of CRCA material with 1.5/2mm thickness only and fitted inside CSS having galvanized enclosure. Kindly confirm.	accepted
55						Main busbar for phases is 2500Amps Aluminium. Hence we have considered 2500Amps Aluminium Busbar capacity for main and Neutral also. Kindly confirm.	accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
56						Offered CSS is type tested as per IEC 62271-202. Repetition of type tests/special tests if any cannot be carried out for the offered requirement. Only routine tests as per IEC shall be carried out on complete assembled CSS at our system House works in Nasik. Individual Equipment available type test report shall be submitted for review. Any special Test /type test on RMU/Transformer/ACB shall not be carried out. RMU/Transformer/ACB shall be fitted inside CSS enclosure hence IP report of CSS shall be provided. For Transformer tests under sl. No. i, ii, iii & iv mentioned on page no. 20, available test reports of similar rating shall be provided test can not be carried out. Rest of the test as per vi,vii,viii,ix as mentioned on page no. 20 shall be carried out in only one number transformer at Transformer works. Certificate for x. Environmental Test, Climatic test and fire behaviour test ratings for E2/C2/F1 test certification as per IEC60076-11 enclosed for reference purpose. Kindly confirm.	Accepted
1	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	198 of 293	RMU CONFIGURATION		4 Way with 2CB (For Indoor and Outdoor application): Both side extensible 2 Nos. 630A Load Break Switches + 2 Nos. 630A Feeder Vacuum Circuit Breakers with self-powered O/C + E/F relays + shunt trip coil (24V DC) + 1 No. Electronic Fault Passage Indicator in left side LBS in each RMU	Our understanding on the configuration part is, 4way RMU Outdoor Type 2LBS + 2VCB Request TPCODL confirmation on below points: 1. Extensible or Non Extensible ? 2. LBS is motorized or manual ? 3. VCB is motorized or manual ? 4. FPI is required in one LBS or Both the LBS ? 5. With FRTU or Without FRTU ?	1. RMU will be Extensible type on either side. 2. LBS is motorized . 3. VCB is motorized . 4. FPI is required in one LBS . 5. FRTU taken as separate line item in Tender.pls refer tender BOQ
2	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	199 of 293	GENERAL DETAILS		1.2.1 The mimic board shall be provided with IP2X degree of protection for Indoor RMUs and protection for Outdoor RMUs shall be minimum IP 54(Main door closed). Cable compartment shall be IP54.	IP54 for Mimic & Cable door shall be achieved with outdoor Enclosure door close condition	ACCEPTED
3	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	200 of 293	GENERAL DETAILS 1.2.8		Mechanical interlocking systems shall prevent access to the operating shaft to avoid all operator errors such as closing the earth switch when the Load break switch is closed or when cable is charged	Cable charge indication is detected by VPIS system. Mechanical or Electrical interlock between VPIS & ES is not possible to provide	Accepted
4	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	200 of 293	GENERAL DETAILS		1.2.9 All panel covers shall be provided with anti-vandal screw bolts so that opening of panel covers is only possible with special tools, which shall be provided by the Bidder as mandatory spare/tool.	Panel covers associated with Live parts are not possible to access without OEM operation handle (supplied along with RMU) & following proper interlock process	ACCEPTED
5	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	201 of 293	GENERAL DETAILS		1.2.11 Three way with two CB configuration	Not applicable for this tender	Not part of this tender
6	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	201 of 293	Incomer Load Break Switches (LBS) 1.4.1		The position of the power contacts and earthing contacts shall be clearly visible on the front of the RMU	The position of the power contacts are not possible to view, however the position of the LBS & ES is possible to view on the mimic	ACCEPTED
7	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	202 of 293	Incomer Load Break Switches (LBS)		1.4.2 Electrical /Mechanical Interlock should be provided to the Earth switch it should not be Close when cable is back charged	Cable charge indication is detected by VPIS system. Mechanical or Electrical interlock between VPIS & ES is not possible to provide	ACCEPTED
8	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	202 of 293	Circuit Breaker For Transformer / Local Feeder Control		1.5.2 The position of the power and earthing contacts shall be clearly visible on the front of the RMU.	The position of the power contacts are not possible to view, however the position of the VCB, Disconnecter Switch & ES is possible to view on the mimic	ACCEPTED
9	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	203 of 293	Circuit Breaker For Transformer / Local Feeder Control 1.5.9		The required motor for this operation shall be delivered separately to stores (at a later date) and shall be compatible with older versions of RMUs already working within the TPCODL network	If the RMU configuration is motorized, LBS & VCB motor units will be factory fitted & supplied If the RMU requirement is manual, no separate motor unit will be considered to supply to stores	RMU VCB & LBS is motorised & factory fitted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
10	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	203 of 293	Circuit Breaker For Transformer / Local Feeder Control		1.5.17 In control cabinet the Terminal block shall have AC input wiring provision and MCB provision for incoming of LT AC supply	Our understanding on this point is, RMU supplier has to provide TB for AC supply with MCB 230V AC 50HZ supply shall be arranged by TPCODL externally	230V AC will be supplied by TPCODL
11	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	204 of 293	Circuit Breaker For Transformer / Local Feeder Control		1.5.21 Electrical /Mechanical Interlock should be provided to the Earth switch it should not be Close when cable is back charged.	Cable charge indication is detected by VPIS system. Mechanical or Electrical interlock between VPIS & ES is not possible to provide	Accepted
12	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	204 of 293	Circuit Breaker For Transformer / Local Feeder Control 1.5.22		The CT settings shall be adjustable between 60 - 400/1 Amp for outgoing feeder and transformer in relay	Our understanding on this point is, CT ratio for both the VCB is 60-400/1A & as per "Clause 1.5.24" VA Burden is 2.5VA & Class: 5P10	CT ratio for the VCB is 60-400/1A & as per "Clause 1.5.24" VA Burden is 2.5VA & Class: 5P10
13	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	205 of 293	Circuit Breaker For Transformer / Local Feeder Control 1.5.25		The CTs of 5P20 Class shall be employed. CT ratio shall be 200/1 (Further CT ratio may finalized during detailed engineering)	This statement is contradicting with "Clause 1.5.22 & 1.5.24" Pls clarify	CT ratio for the VCB is 60-400/1A & as per "Clause 1.5.24" VA Burden is 2.5VA & Class: 5P10
14	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	205 of 293	Circuit Breaker For Transformer / Local Feeder Control 1.5.25		The transformer ratings which are to be controlled by the breaker are as follows: 500kVA to 2000kVA.	Please confirm Transformer Auxiliary protections such as WTI, OTI, Bucholz, PRV to be considered or not	Shunt Tripping coil shall be given as per TPCODL Specification there to trip the VCB for WTI, OTI& PRV
15	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	205 of 293	Bushings and Cable terminations 1.6.1		The termination bolt shall be M16 only for TPCODL ODISHA supplies for all bushings & M12 for TPCODL ODISHA supplies	As per OEM standard & Type tested design	The termination bolt shall be M16 only for TPCODL ODISHA supplies for all bushings for connecting 11KV cable 3CX400sqmm
16	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	206 of 293	Bushings and Cable terminations 1.6.8		a cable test rod (to be quoted as spare)	Not in scope of RMU supplier	ACCEPTED
17	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	206 of 293	Bushings and Cable terminations 1.6.9		The cable cover door shall be pad lockable and shall be Tamper and Arc proof.	Since the cable cover door is arc proof, it is not pad lockable. However ES is having provision for padlocking after ES put into ON position	ACCEPTED
18	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	206 of 293	Bushings and Cable terminations		1.6.11 Locking provision of cable compartment door to be provided in case of any switch/CB is at earth position to avoid pilferage	Since the cable cover door is arc proof, it is not pad lockable. However ES is having provision for padlocking after ES put into ON position	ACCEPTED
19	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	207 of 293	Earthing:		1.7.4 Two nos. body earthing bolts of M12X70 mm to be provide on the extended bus-bar.	Two no's body earthing bolts shall be provided, however size of the bolt is as per OEM standards & Type tested design	Accepted but it should able withstand rated fault current & calculation sheet is required to submit
20	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	207 of 293	Voltage indicator lamps and phase comparators		The auxiliary contacts in VPIS shall be there should be electrical interlock of cable presence indicator and operation of earth switch in RMU incomer cable compartment of LBS.	Cable charge indication is detected by VPIS system. Mechanical or Electrical interlock between VPIS & ES is not possible to provide	Accepted
21	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	Remote Control of the RMU: 1.11.2		Preferred communication protocol for FRTU shall IEC-60870-5-104.	Pls confirm Supply of FRTU is in scope of RMU Supplier or not	FRTU is considered as separate line item in Tender.pls refer tender BOQ
22	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	Remote Control of the RMU: 1.11.2		(A flag is required for series and shunt coil actuation).	Fault trip Flag is an inbuilt LED indication in numerical relay. No separate mechanical flag is considered	accepted
23	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	Remote Control of the RMU: 1.11.2		Also, the PCB of motor should be covered by anti-tracking agent. There should be relay with timer instead of only relay, which is used in the latching circuit.	Motor kit for RMU is not PCB design hence no relay or timer is considered for motor kit	accepted
24	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	Remote Control of the RMU: 1.11.2		Suitable unlatching system to be provided to prevent mal operation of motor in case of any latched command/ non executed command at RMU (case like fuse failure etc.)	Motor Circuit is protected with Micro Switch & MCB for overload and other mal functions	accepted
25	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	210 of 293	Remote Control of the RMU: 1.11.2		The bidder shall quote the cost of field RTU (FRTU) separately with all technical details for acquisition of the signal as described in Annexure-1.	Pls confirm Supply of FRTU is in scope of RMU Supplier or not. If yes pls share the Annexure-1	FRTU is considered as separate line item in Tender.pls refer tender BOQ
26	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	211 of 293	Paint		The enclosure of the RMU shall be painted with shade light Grey, i.e., AL 7032.	Front cover : RAL-7035 Cable cover: RAL-7035 Enclosure: IS5 of shade 632 (Thickness 60-80 microns)	accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
27	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	211 of 293	TYPE TEST REPORT		Type test should have been conducted in certified test laboratories during the period not exceeding 5 years from the date of Permission.	Offered RMU's are designed & type tested as per applicable IEC standards We do not envisage to do re type tests on the product Type test reports to be considered for validation as per new CEA guidelines released in May 2020 & Extension to the same in Sept 2021	Type test report validation is allowed up to 10Years if there is not design change.However undertaking is required in bidder letter head .
28	TPCODL-ENGG. -001 48.0 11kV RING MAIN UNIT	211 of 293	TYPE TEST REPORT		12. Dimensional and Visual Checks.	Dimension and visual checks are offered in routine/FAT test. This is not Type Test.	accepted
29					Warranty	Please confirm the warranty to be considered for this product & tender package	Guarantee is 60Months from Date of comissioning
1	Specific requirements of control & Protection circuits:/252 of 293				There must be separate supply from any one ACDB outgoing phase busbar tapping for auxiliary supply to one 5/15A sockets and this is to be marked with name plate.	Point not clear,is it related to CSS	This is not required for this Tender
2	Specific requirements of control & Protection circuits:/252 of 293				The LT breaker relay testing kit to be provided with each PSS.	Not in scope of supply of OEM of CSS	This is not required for this Tender
3	C. DISTRIBUTION TRANSFORMER/246 of 293				Total Max losses at 50% Loading	Please clarify losses shall be as per ECBC 2017 or standard losses IS tol.	losses shall be as per ECBC 2017
4	C. DISTRIBUTION TRANSFORMER/246 of 293				Total max Losses (Cu only) losses at 100%	Please clarify losses shall be as per ECBC 2017 or standard losses IS tol.	losses shall be as per ECBC 2017
6	4.0 GENERAL TECHNICAL REQUIRMENTS/ 214 of 293				Trf compartment – IP 33,RMU – IP 67 for Tank, IP2X for the front cover / mimic board, IP 54 (Main door closed) for Outdoor RMUs.IP 54 for cable compartment	Ok, Transformer compartment shall be IP23 & we are giving indoor type 3 way RMU, 21kA/3sec (2nos 630A motorised Load Break switch & 1 no 630A Manual Circuit Breaker)	Accepted .However LBS & VCB shall be motorised
7	ix. Bushing and cable Termination/ 220 of 293				RMU : For HT side termination, tinned Copper busbar shall be provided with AI Lugs suitable forconnecting to 11 kV 3C x 400 sq.mm to Isolator and 3Cx300 sq mm AL XLPE cable to Breaker compartment.	For HT side we will provide bushing for cable termination & connection between RMU to Transformer through Cable 1Cx185sqmm AL XLPE cable to Breaker compartment	Accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
8	iv. Windings/ 225 of 293				<p>Primary and secondary windings shall be constructed from high- conductivity, Double Paper Covered (DPC) copper conductor. The winding shall be designed for better voltage regulation and mechanical strength. LV winding shall be such that neutral formation will be at top. The coil shall be circular in shape and their construction shall be such that there is no possibility of any distortion under likely conditions of service. Inter layer insulation both for HV and LV windings shall be Epoxy dotted Kraft/Kraft paper and pressboard of standard make or any other superior material subject to approval of Purchaser shall be used. All spacers, axial wedges/runners used in windings shall be made of pre-compressed solid press board. In case of cross-over coil winding of HV, all spacers shall be properly sheared and dovetail punched to ensure proper locking. All axial wedges/runners shall be properly milled to dovetail shape.</p> <p>Operations shall be carried out in such a way, that there should not be any burr and dimensional variations. Proper bonding of inter layer insulation with the conductor shall be ensured. Test for bonding strength shall be conducted as per standards. The dimensional tolerances for windings shall be within limits and as specified in the GTP. All turns of windings shall be adequately supported to prevent movement. The core/coil assembly shall be securely held in position to avoid any movement under shortcircuit conditions. The joints in the winding shall be avoided but if it is necessary then, these shall be properly brazed and the resistance of the joints shall be less than that</p>	We are quoting dry type transformer and given specification is for Oil type Transformer so it is not applicable for Dry type Transformer	Requirement is Dry type Transformer
9	iv. Windings/ 225 of 293				The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to 2.5%	We are quoting dry type transformer and given specification is for Oil type Transformer so it is not applicable for Dry type Transformer	Requirement is Dry type Transformer
10	xiv Marshalling Box/228 of 293				All transformers shall have standard marshaling box. The Links in these should be of disconnecting type and should have facility to hold ring type of lugs. All links shall be droppable type ASEA links. Marshaling Box shall be suitably located not to obstruct the doors & power cables. Sufficient extra links to be provided for control wiring. Knock outs to be provided in marshaling box for control cabling. Heaters shall be provided in the marshaling Box and shall be fitted in proper location without creating any obstruction to other equipment in MB.	Marshalling Box is not required for PSS application	Accepted, however all Terminals of WTI & PSS limit switch TB shall be provided in proper location

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
11	xvii. Fittings/230 of 293				<ul style="list-style-type: none"> Winding temperature indicator complete with thermostat and annunciator (Alarm and trip) Diagram, rating plate, terminal marking plate should be non-detachable. Separate plate for guarantee period & date of dispatch. Two earthing terminals with lugs at the centre of the bottom channels supporting the transformer. Lifting lugs for main tank & top cover. HV bushings – 3 Nos. LV bushings – 4 Nos. Stiffener angle HV connection with adequate CU bus bar. LV side connection with adequate Cu bus bar suitable to connect 1.1KV XLPE cables 4CX 300 Sq.mm cables for further distribution. Marshalling box with WTI on HT side. HV and LV cable terminal box should be at 180° and shall be properly supported. Separate neutral bushing with earth bar supported on insulation. Neutral Bushing CT : 2000/5 for 1000, 750 and 630 KVA. Inspection Cover & sufficient ventilation from bottom side also. 	<p>1) We will provide only WTI with Alarm & trip (Loose), Liftings lugs fir Tank cover only & HV connection suitable cable</p> <p>2) Marshalling Box is not applicable in PSS application and we will not provide inspection cover</p>	Accepted, however all Terminals of WTI & PSS limit switch TB shall be provided in proper location
12	vii. Terminal arrangement for incoming & outgoing/ 226 of 293				<p>RMU : For HT side termination, tinned Copper busbar shall be provided with Al Lugs suitable for connecting to 11 kV 3C x 300 sq.mm for isolator or 1Cx185 sq mm AL XLPE cable for Breaker.</p> <p>LT ACB: For LT side termination, AL bus bar of 2000A capacity having provision for connecting 4CX300 sq mm AL XLPE cable. Colour sleeves to be provided on busbars for easy identification.</p> <p>All control cables shall be provided with identification tags.</p>	For HT side we will provide bushing for cable termination & connection between RMU to Transformer through Cable 1Cx185sqmm AL XLPE cable to Breaker compartment.	Accepted
15	237 of 293				SPARES, ACCESSORIES & SPECIAL TOOLS/GAUGES	Kindly provide list of mandatory spares as it is not given in specifications	Mandatory spare is not required
16	5. General construction/ 215 of 293				Name plate "Energy Meter" should be given on PSS LT Panel side door for indicating energy meter inside.	We can Provide the 'Space for Provision' Of Energy Meter with Measuring CT's. Kindly confirm supply of energy Meter is in TATA Power scope	Energy meter is in scope of TPCODL
	5. General construction/ 215 of 293				g) There must be three separate sources of supply for protection, Auxiliary & external lighting circuit.	External Lighting is not in CSS supplier scope. Internal Supply for Protection and Auxiliary supply as per ealrier supplied CSS.	Accepted
	5. General construction/ 215 of 293				Outgoing 440V circuit 630A MCCB's must be mounted horizontally on LV switchgear panel.	We request you please elaborate / clarify the requirement	This shall be as per OEM design & last supply to any tatapower company, this can be discussed in detailed engineering
	5. General construction. lli.Paint / 216 of 293				PENTON E2727C	In tender specs we found various paint shade like Ral 7032, Pentron E2727C. Please confirm on this paint shade	Accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
17	5. General construction: v.Extensible canopy to be provided on both sides of the PSS / 217 of 293				As per safety norms the arc suit of the person operating the system should not get wet during rainy season. Sample drawing is as shown below.	We propose to provide foldable extended canopy in all four sides as shown in below figure. However as per clause it is mentioned extended canopy to be provided on both sides. Kindly confirm canopy to be provided on 2 sides or all 4 sides. if it is two sides kindly confirm which two sides.	Extended canopy is not required for PSS.Canopy is required only on RMU & LTDB Side .However the PSS enclosure should be IP tested as per Tender specification
19	11KV RMU; viii. CIRCUIT BREAKER FOR TRANSFORMER CONTROL: 220/293				CIRCUIT BREAKER FOR TRANSFORMER CONTROL: There should be provision for testing of cable without opening the front door by suitable arrangements. In case cables are to be tested with front door open, doors shall have interlock such that doors can be opened only with earth switch in closed position & a cable test rod has to be provided which can be fixed on the terminations to facilitate testing. Termination boots as approved by Tata Power should have a proper opening to facilitate the testing. The opening should be covered by means of removable protection cap.	Please confirm supply of cable test rod is in our scope or in the scope of tata power.	Not required
20	11KV RMU; ix.BUSHING AND CABLE TERMINATION: RMU : 220/293				For HT side termination, tinned Copper busbar shall be provided with Al Lugs suitable for connecting to 11 kV 3C x 300 sq.mm to Isolator and 1Cx185 sq mm AL XLPE cable to Breaker compartment.	Please confirm supply of termination kit is in our scope if so please confirm the quantity.	Termination KIT shall be provided with RMU for LBS Compartment .The approved make are Raychem, 3M, Cell Pack. The cable termination kit shall be suitable to 11KV 3CX400Sqmm XLPE Cable
21	xiii. TEMPERATURE INDICATORS: 228 of 293				Winding Temperature Indicator (WTI) for measuring the hot spot temperature of the winding shall be provided. It shall be suitable for control room as well as marshalling box installation and is built for long and trouble free operation under extreme conditions of service associated with the Cast resin Dry type transformers. It shall comprise of the following devices/features: a) RTD sensors shall be suitable to allow the user to monitor maximum six Critical Temperature parameters on the Transformer. Routing of sensing cables shall be done through cable turf with necessary tying through nylon tie belts.	4 No's RTD will be provided with Digital Scanner as general practice Kindly confirm.	Accepted
23						Approved make list for CRT CT'S is not given in specifications. Kindly provide the same.	OEM can suggest however prior approval to be taken from TPCODL

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
24						Delivery period is not given in specifications kindly specify.	Delivery period as per Contract Terms & condition
29	i. Indoor Enclosure/ 215 of 293				The enclosure shall be made of minimum 2-3 mm thick GI sheet with base of 4 mm (min).	We have offered OUTDOOR duty CSS . The base of the CSS shall have 4 mm thickness HRCA base frame. Enclosure load bearing members shall have 2 mm thickness of GI sheet steel and Non Load bearing members of the enclosure shall have 1.5 mm thickness of GI sheet steel.	Accepted
30	i. Indoor Enclosure/ 215 of 293				Transformer compartment as IP33	Degree of Protection for Transformer compartment shall be IP23 for the rated output KVA. This is inline with Bidder make CSS Type tested design and inline with our last executed order for Tata Power Mumbai.	Accepted
31	i. Indoor Enclosure/ 216 of 293				bidder shall provide provision for remote monitoring of status of RMU, fault passage indicator, LT ACB & MCCBs.	We are offering Potential Free Contacts for status monitoring only. RMU is manual operation.	Accepted.RMU is required motorised for LBS & VCB
32	ii.Earthing/ 216 of 293				All metallic components of Sustation shall be earthed to common earth conductor of size 50x6 tinned Cu or 65 x 10 mm GI	Over all internal earthing of CSS shall be 50 x 6 Copper.	Accepted
33	iii. Paint/ 216 of 293				Sufficient quantity to touch-up paint shall be furnished for application at site. The enclosure shall be with shade PENTON E2727C	CSS Enclosure shall be Powder coated with PENTON E2727C (Blue). Additional quantity of touch-up paint not considered in our scope.	Accepted
34	v. Extensible canopy to be provided on both sides of the PSS 217 of 293				Extensible canopy to be provided on both sides of CSS	Same is not envisaged in our offered design of CSS. We have supplied more than 2000 Nos. CSS across India without any additional canopy. Request you to accept the same.	Accepted
35	11KV Ring Main Unit/218 of 293				Outer body shall be made of GI sheet steel, minimum 2mm thick with 3 mm thick gland plate.	Outer body shall be made of out of CRCA material of thickness 2mm and shall have 3 mm thick gland plate.	11KV Ring main unit outer body shall be 2mm thickness , Tank shall be 2.5mm thickness & gland 3mm is accepted
37	11KV Ring Main Unit/218 of 293				The RMU Body shall be earthed with 25 x 6 Sq.mm Tinned copper strips	The RMU Body shall be earthed with 30 x 4Sq.mm copper strips. This is inline with type tested design.	Accepted. Calculation sheet is required
38	11KV Ring Main Unit/218 of 293				Transparent covers	The earth position shall be indicated with the help of true position indication system without transparent covers.	Accepted
39	11KV Ring Main Unit/218 of 293				Interlocking	We shall provide the padlocking facility for earth switch & indication system shall be provided for Volatge presence in incoming cable.	Accepted
40	vii. INCOMER LOAD BREAK SWITCHES (LBS) :219 of 293				The switch and earthing switch operating mechanism shall have mechanical endurance of at least of 5000 operations	The switch and earthing switch operating mechanism shall have mechanical endurance of 1000 operations	Accepted
41	viii. Circuit Breaker for Transformer control / 219 of 293				The position of power and earthing contacts shall be clearly visible on the front of the RMU	Active Circuit is inside sealed Tank hence its ture indication shall be shown on the front mimic of the RMU.	Accepted
42	viii. Circuit Breaker for Transformer control / 219 of 293				The setting shall be adjustable between 0 to 75 Amp.	The setting shall be adjustable between 15 to 60 Amps	Accepted
43	viii. Circuit Breaker for Transformer control / 219 of 293				The relay shall be as per Tata Power approved make	The offered Relay shall be of Bidder Make of Model No: REJ603 as per our recent supplies to Tata Power Limited.	Accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
44	viii. Circuit Breaker for Transformer control / 219 of 293				RMU Protection CTs installed in Breaker compartment of RMU should be of Cast resin Type or as per Tata power approved Make. The CTs need to be mounted on bushing or externally mounted over the insulated plate . The ID of CT should be suitable to 1C X 185 sqmm 11KV cable	As the CT shall be for brekaer module and offered RMU shall ne fitted inside CSS hence the CT ID shall be suitable for 95Sqmm cable. CT make shall be Ericon as per earlier supply.	Accepted
45	viii. Circuit Breaker for Transformer control / 219 of 293				There should be a provision for testing of cable without opening the front door by suitable arrangements	There shall be provision for testing of cable by opening cable compartment but there shall be sufficient interlocks so that LBS cable not be ON when cable compartment door is in OPEN position	Accepted
46	viii. Circuit Breaker for Transformer control / 219 of 293				There should be provision of hinged doors in the RMU.	Hinged door are not applicable for RMU as RMU is indoor type and fitted inside CSS HT compartment. Removable door shall be provided as per new design.	Accepted
48	Safety of people/221 of 293				Internal Arc fault IAC-AB as per IEC62271-202	IEC 62271-202 is applicable for CSS. RMU is type tested as per IEC 62271-200.	accepted
49	Paint/ 221 of 293				RMU - RAL 7032 or 631 as per IS-5. Sufficient quantity of touch up paint shall be furnished for application at site	The RMU body shall be painted with shade RAL 7035. Additional quantity of touch-up paint not considered in our scope.	Accepted
50	GENERAL CONSTRUCTION: 221/293				The transformer shall be suitable for service with fluctuations in supply voltage upto plus 12.5% to minus 12.5%.	As per IS 11171	Accepted
51	228 of 293				TEMPERATURE INDICATORS:	Winding temperature indicator shall be pecon make model no. TR7576-C provided.	Accepted
52	225 of 293				WINDINGS:	LV winding shall be prepeg with top and bottom resin mixure and HV shall be fully casted for dry type transformers. Insulation class shall be Class H with temperature rise 115 degree C as per IS 11171.	Accepted
53					WINDINGS: The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to 2.5%.	The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to $\pm 5\%$.	WINDINGS: The tolerance for the winding resistance measurement for different phases but at same taps shall be limited to 2.5%.
54					FASTENERS:	Fastners shall be stainless steel.	Accepted
55	Transformer Losses247 of 293				1000KVA Max losses at 50% Loading at 75degree (watt) - 2790 watt Max losses at 100% Loading at 75degree (watt) -7700 watt	mentioned losses in Specs are Of Oil type transformer, for Dry type we can offer as per ECBC 2017 revised 2018 edition i.e. Max losses at 50% Loading at 75degree (watt) - 4500 watt Max losses at 100% Loading at 75degree (watt) -12000 watt. However as per Pre Bid reply we are confirming the require losses of Specs as per GTP enclosed. We do not envisaged any special test/ Type test for the same. Loss capitalization not envisaged.	ECBC -2017 losses is accepted
57					Transformer shall be painted with shade 631 as per IS:5 and RAL 7032 as applicable.	We have offered Transformer inside Transformer compartment of CSS enclosure having shade nearer to PENTON E2727C Blue.	Accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
58	Termination arrangement for Incoming & Outgoing / 226 of 293				RMU- Tinned copper Busbar shall be provided. LT- AL busbar of 2000A capacity having provision for connection 4C x 300Sqmm AL XLPE cable.	Offered RMU is safering type with Bushing provided on HT side and suitable to terminate cable 11KV 3C x 300Sqmm or 1C x 185sqmm AL XLPE cable. For LT side we have provided 630A MCCB after ACB as per Clause No. 8.1.1. hence direct cable termination after ACB not considered. As all outgoing MCCB are 3P hence 3C x 400 Sqmm cable termination possible at MCCB outgoing.	Accepted
59					Copper busbar between RMU & Transformer and Transformer & LT panel.	Cable Boxes not applicable for Transformers being used in CSS application. Hence not considered. Wire mesh shall be provided on louvers on door. Interconnection between RMU and Transformer shall be using 1C 95Sqmm Cu XLPE Cable and Between Transformer and LT Panel using Copper Busbar of rating 2500A.	Accepted
61	x.EARTHING CONNECTION /227 of 293				50x 6mm Cu or 65 x 10mm GI	Over all internal earthing of CSS shall be 50 x 6 Copper.	Accepted, however detail calculation sheet is required for handling fault current 21KA
62	MARSHALLING BOX/ 228/293				MARSHALLING BOX	Not applicable	Accepted
64	LV Compartment/ 231 of 293				The frame work covered from the front with GI sheet of thickness not less than 2mm	The LT panel construction shall be of CRCA material with 1.5/2mm thickness only and fitted inside CSS having galvanized enclosure.	Accepted
65	ACB and MCCB with Busbar/ 231/293				The neutral Busbar shall be of same size as phase busbar. The neutral busbar shall be suitable to carry 2000Amps.	Main busbar for phases is 2500Amps Aluminum. Hence we have considered 2500Amps Aluminum Busbar capacity for main and Neutral also.	Accepted
66	Paint/ 232 of 293				RMU - RAL 7032 or 631 as per IS-5. Sufficient quantity of touch up paint shall be furnished for application at site	The RMU body shall be painted with shade RAL 7035. Additional quantity of touch-up paint not considered in our scope. LT panel shall paint shade shall be as per manufacturer standard.	Accepted

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
67	Type Test Certificate/235 of 293				Type Test	Offered CSS is type tested as per IEC 62271-202. Repetition of type tests/special tests if any cannot be carried out for the offered requirement. Only routine tests as per IEC shall be carried out on complete assembled CSS at our system House works in Nasik. Individual Equipments available type test report shall be submitted for review. Any special Test /type test on RMU/Transformer/ACB shall not be carried out. RMU/Transformer/ACB shall be fitted inside CSS enclosure hence IP report of CSS shall be provided. For Transformer tests under sl. No. i, ii, iii & iv mentioned on page no. 20, available test reports of similar rating shall be provided test can not be carried out. Rest of the test as per vi,vii,viii,ix as mentioned on page no. 20 shall be carried out in only one number transformer at Transformer works. Certificate for x. Environmental Test, Climatic test and fire behavior test ratings for E2/C2/F1 test certification as per IEC60076-11 enclosed for reference purpose.	Type test report validation is allowed up to 10Years if there is not design change.However undertaking is required in bidder letter head .
68	Spares, Accessories & Special Tools/Guages 237 of 293				As mentioned in specification	Presently we have not quoted for special tools, spares/accessories. We shall submit the prices for the spares and accessories in the event of order for CSS.	Spare & accessories is not considered in Tender
COMMERCIAL							
1	Annexure VIII – General Condition of Contract	11 of 164	4.8	Company's Right To Use Works	If Taking Over Certificate is delayed for any reason, for which TPCODL's decision shall be final and binding upon the Associate, the Company shall be entitled to use the works or portion thereof without affecting Associate's responsibility and liability to complete the balance works as per company's directives from time to time, though Associate shall be afforded reasonable opportunity by the company to enable Associates to complete all balance works required for issuance of 'Taking Over Certificate' by the company.	It is understood that if company use the works or portion of work then that work or portion of work shall be deemed to be taken over. Kindly confirm.	To be complied as per T&C of tender documents
2	Annexure VIII – General Condition of Contract	12 of 104	5.2	RICES/ RATES/ TAXES : For Service part of Contract	The Prices and Rates are inclusive of cost of materials supplied as per contract terms and for which MDCC is issued by TPCODL and to the extent required for completion of works, cost of service executed as per schedule of quantities, cost of testing as per contract terms, cost of documentations including all relevant test certificates and other supportive documents to be furnished as per contract terms. The rates shall remain firm till actual completion of contract. The Prices/Rates are inclusive of all taxes, levies, cesses and duties, particularly Goods and Services Tax as applicable. All government levy / taxes shall be paid only when the invoice is submitted according to the relevant act. The prices shall remain unchanged irrespective of TPCODL making changes in quantum in all or any of the schedules of items of contract.	Request you to provide price adjustment clause for the contract beyond the contract period.	To be complied as per T&C of tender documents

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
3	Annexure VIII – General Condition of Contract	13 of 104	6.0.A.(c)	Terms of Payments	Submission of Contract Performance Bank Guarantee of 5/10% of the RC/ PO price valid till 30 days after taking over of the works.	Request you to reduce the contract performance guarantee to 3%, as per Ministry of Finance OM dated 12-Nov-20.	To be complied as per T&C of tender document i.e. @ 10% of the total PO value specified in the Post Award Contract Administration (Clause 7.0) at page no-17
4	Annexure VIII – General Condition of Contract	15 of 104	8	Security Cum performance	Associates shall submit within 15 days from the effective date of issue of PO/RC, Security cum Performance Guarantee (SPBG) in the format as per Annexure B of this document from banks acceptable to TPCODL for: (a) 5% of the PO value if purchase order value is more than Rs 5 Crores. (b) 10% of the PO value if purchase order value is less than Rs 5 Crores. This shall remain valid till the end of the Guarantee Period of contract, plus one month. (c) 5% of the RC value in case of Rate Contract. This shall remain valid till the Guarantee period plus one month.	Request you to reduce the security cum performance deposit to 3%.	DO
5	Annexure VIII – General Condition of Contract	23 of 104	14.2	Guarantee Period	The Guarantee Period will be equipment/service/work specific and shall be as specified in the Standard Specifications of TPCODL for the equipment/material/service/work and where standard specifications are not part of contract documents or guarantee period is not specified in the standard specifications, the guarantee period shall be as per the Special Terms and Conditions of the Contract. In case of no mention of the guarantee period in standard specifications or SCC, Guarantee Period will be 15 Months from the Date of Commissioning or 24 months from the date of delivery of final lot of supplies made, whichever is earlier.	Request you to kindly make Guarantee period of 12 months from the Date of commissioning or from the date of delivery of final lot of supplies made, whichever is earlier.	Guarantee period should be 60 months from the date of handing over the completed installations is mentioned in the Post Award Contract Administration (Clause 7.0) at page no-16
6	Annexure VIII – General Condition of Contract	24 of 104	16	Liquidated Damages	Liquidated damages @1% of the total executed contract value per week or part thereof, for the period of delay in integrated completion, subject to maximum 10% of the value of the contract shall become leviable without prejudice to other rights of the TPCODL. This amount shall be recoverable from any amount due or becoming due to the Business Associates under this or any other contract. In specific cases, TPCODL reserves the right to apply LD only on the unexecuted portion of the supply and works for standalone use, provided full quantity is executed within a maximum 30% additional time. Deduction of LD shall be on landed cost i.e contract value inclusive of taxes and in pursuant statutory compliance GST would be applicable at the stipulated rate and the same shall be borne by Business Associate. In case of LD deduction, a GST invoice shall be issued by TPCODL as a proof of deduction/ recovery.	Request you to kindly reduce the Liquidated damages @0.5% of the total executed contract value per week or part thereof, for the period of delay in integrated completion, subject to maximum 05% of the value of the contract.	Penalty @5% is already there in the Post Award Contract Administration (Clause 7.0) at page no-16

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
7	Annexure VIII – General Condition of Contract	32 of 104	24.2	Termination for convenience of Associate	Associate at its convenience may request for termination of contract, clearly assigning the reason for such request. TPCODL has full right to accept, reject or partially accept such request. This convenience will be available to associate only after one year from the contract effective date. For this purpose, associate will provide a notice period of 90 days to TPCODL, Associate will have to pay TPCODL a 'termination convenience fee' equivalent to 5% of unexecuted contract value.	It is requested to waive off the termination convenience fee of 5% of unexecuted contract value.	To be complied as per T&C of tender document
8	Annexure VIII – General Condition of Contract	32 of 104	24.3	Termination for Convenience of TPCODL	TPCODL at its sole discretion may terminate the contract by giving 30 days prior notice in writing or through email to the Associate. TPCODL shall pay the Associate for all the supplies/ services rendered till the actual date of contract termination against submission of invoice by the Associate to that effect.	In case of rejection on our above request to waive off the termination convenience fee of 5%, it is requested that TPCODL shall pay 'termination convenience fee' equivalent to 5% of unexecuted contract value.	To be complied as per T&C of tender document
9	Annexure VIII – General Condition of Contract	32 of 104	25	Dispute Resolution and Arbitration	In case of any dispute or difference the parties shall endeavor to resolve the same through conciliatory and amicable measures within 15 Days failing which the matter may be referred by either party for resolution by the sole arbitrator to be appointed mutually by both the parties. The arbitral proceedings shall be conducted in accordance with Arbitration and Conciliation Act 1996 and the place of arbitration shall be Bhubaneswar. The language to be used at proceedings shall be English and the award of the arbitrator shall be final and binding on the parties. The parties shall bear their respective costs of arbitration. The associate shall continue to discharge its obligations towards due performance of the works as per the terms of the contract during the arbitration proceedings unless otherwise directed in writing by TPCODL or suspended by the arbitrator. Further, TPCODL shall continue making such payments as may be found due and payable to the associate for such works.	Request you to kindly change the venue of Arbitration to Mumbai, India and the expenses of the arbitrators and proceedings shall be shared equally by both the parties.	To be complied as per T&C of tender document
10	General Condition of Contract - Composite Works	pg.24 of 104	14.6	Latent Defect	Hidden defects in manufacturing or design of the product supplied and which could not be identified by the tests conducted but later manifested during operation of the equipment are termed as latent defects. Associates shall further be responsible for 'free replacement' for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by the Company		To be complied as per T&C of tender document
11	General Condition of Contract - Composite Works	pg.24 of 104	14.7	Support beyond the Guarantee Period	The Associate shall ensure availability of spares and necessary support for a period of at least 10 years post completion of guarantee period of equipment supplied against the contract.		To be complied as per T&C of tender document
12	General Condition of Contract - Composite Works	pg.32 of 104	27	Insurance	The Associate shall arrange accident insurance policy for his foreign experts/specialists/personnel deputed to Site and Associate's/his sub-Associates' manufacturing works as well as for his Indian engineers and supervisory staff. The Associate shall also take out for his Indian workmen, where applicable, a separate policy as required under Workmen's Compensation Act	We have standard personal accident claim policy, the coverage includes contract/subcontract labours, fixed term contract empl, outsourced empl, third Party roll employees working with voltas ltd & its subsidiaries in voltas premises &/or client sites Within india. Further, we have standard inbuild voltas umbrella policy for work man compensation & ear policy to cover the risk of our job sites., there fore seperate policy is not required. Kindly Confirm.	To be complied as per T&C of tender document

S.No	Document Reference	Page Ref	Clause Ref	Subject	Specification as per tender	Prebid Queries	TPCODL remarks
13	ANNEXURE VI - Checklist of all the documents to be submitted with the Bid	44 of 500	Point no. -17	Solvency certificate	Solvency certificate	As no format for 'Solvency certificate' is seen in the tender documents. We will give our standard 'Bankers certificate' from our bank for fund limit. Kindly Confirm.	To be complier ad per T&C of tender documents
14	Qualification Criteria				1. Work Experience: Bidder should have work experience of executing minimum on turn-key basis of 33 kV / 11 kV and LT UG cable with a cumulative length of minimum 25 km and 33/11 KV grid substation of minimum 01 No in any utility/companies within last 5 years.	if bidder has executed laying of 33KV, 11KV UG cable, its deemed approved that they stand qualified for laying of LT UG cable. As laying of 33KV, 11KV required more technical competence and knowledge due to higher voltage class.	To be complied as per T&C of tender doc
15	3.9 Type Test, Page No 12				The type tests report of the approved make specified in TPCODL specifications should have been carried out within five years prior to the date of opening of technical bids and test reports are to be submitted along with the bids.	Please specify type test required for which materials	Type test report is required for all Major material like RMU, Compact substation, cable, lighting arrester, HDPE Pipe, Disc insulator, pin insulator, AB Switch, Feederpillar box
16	7.1.12, Submittal Required after award of contract, Page No 17				The Drawings and Guaranteed Technical particulars (GTP), Type test report, QAP of all bought out material of approved make specified in the tender shall be submitted prior to inspection.	Please provide approved vendor list of materials	Attached
17	Qualification Criteria				The bidder should have average annual turnover of Rs. 50 Crore in last three years. Audited balance sheet, profit and loss account and auditors report from the statutory auditors of the company required.	Relaxation of TO criteria	To be complied as per T&C of tender doc