

Pre-Bid Queries Responses				
Tender No: TPCODL/CCG/2025-2026/1000003054				
Tender Name: RC for Supply of 33 & 11 kV RMU for TPCODL, TPNODL & TPSODL				
S No.	Tender Reference (Document name/Page no./Clause no./Clause name)	Short Description as per Bid Document	Pre-Bid Query raised by Bidder	DISCOM Response
1	2	3	4	5
1	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 1. SCOPE: Page No: 5 of 32	This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and performance of 33kV Ring Main Units with all accessories and necessary training for trouble free & efficient performance.	Bidder scope is limited to design, engineering, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site Storage is not in Bidder's scope	Except storage, all others will be in Bidders scope
2	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 4. GENERAL TECHNICAL REQUIREMENTS OF RMU: Page No: 7 of 32	Maximum permissible temperature rise for bus bar shall not be 65°C at an ambient temperature not exceeding 40°C, as per IEC 62271-1. However, the temperature rise for accessible enclosures and covers shall not exceed 30K and in case, they are not required to be touched during normal operation, the limit shall be raised by 10K	As per IEC standard and OEM Type tested Design	Noted and accepted
3	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 4.1 RMU Configuration: Page No: 7-8 of 32	1. 4way with 4 LBS 2. 4way with 2 LBS & 2 CB 3. 3way with 3 LBS 4. 3way with 2 LBS & 1 CB 5. 5way with 2 LBS & 3 CB	RMU Configurations considered as per tender BOQ schedule -Lot-2 (Supply of 33 kV RMU)	As per Tendered BOQ item
4		All shunt trip coils shall be 230V AC	As VCBs are motorised Shunt trip shall be 24V DC	The shunt trip coil shall be of 230V AC/24V DC.; However during detail engineering, it will be finalised
5	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.0 General construction for RMU: Page No: 8 of 32	The tank shall have SS sheet of 2.5 mm thickness minimum (or as per type tested design of bidder with undertaking on letter head) and meet the "sealed pressure system" criteria in accordance with the IEC 62271-200.	Bidder SF6 Tank for 33kV is 2mm thickness made of SS304, Robotically welded design as per Type tested design. Shall be as per the existing supply of 33kV RMU to TP Discom	Noted and accepted
6	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.2.8 General details: Page No: 9 of 32	The LBS /CB shall not be closed in case Earth Switch is closed. The earth switch shall be fitted with its own operating mechanism and manual closing shall be driven by a fast-acting mechanism, independent of operator action. 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.	The CB operation is independent of ES operation. PADLOCKING PROVISION IS PROVIDED FOR BLOCKING EARTH SWITCH OPERATION OF MODULES. BEFORE OPERATING EARTHING SWITCH, CUSTOMER NEED TO ENSURE VPIS INDICATION ABSENCE & HT CABLE HIGH VOLTAGE ABSENCE. PADLOCK SHALL BE ADDED AT SITE BY CUSTOMER SO AVOID OPERATION OF EARTH SWITCH BY UNAUTHORISED PERSON. EARTH SWITCH OPERATION IS NOT INTERLOCKED WITH CABLE LIVE CONDITION.	Noted and accepted If the CB operation is independent of ES operation., then Electrical interlock should be there between VPIS & EarthSwitch.
7	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.2.8 General details: Page No: 9 of 32	The earth bus bar shall be covered if passing through the cable chamber and enclosed in an enclosure housing to prevent theft/tampering. Only extension outside enclosure shall open for access	As per OEM type tested Design & as per the existing supply of 33kV RMU to TP Discom	Noted and accepted
8	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.3 Internal Arc: Page No: 10 of 32	cable chamber such way that gas releases away from the operator. Bidder shall provide type test report to prove compliance to the 'Internal fault IAC- A FL minimum for indoor and A FLR for outdoor with bottom release' as per IEC 62271-200 on main tank and cable chambers.	Trench & Plinth arrangement shall be as per Bidder Recommendation	Noted and accepted; However ensure cables can be changed easily
9		In case of SF6 gas leakage from gas tank or any kind of repair should be done at site or replacement of complete RMU to be done free of cost within guarantee period	replacement of RMU against Manufacturing defects only	As per TS and it will be free if it is manufacturing defect

10	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.4.7 Load break switch: Page No: 10 of 32	Load break switch shall have mechanical switch operation counter	Mechanical Counter cannot be provided for 33kV LBS Operation .Counter can be provided for VCB Module	As per TS
11	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.4.8 Load break switch: Page No: 10 of 32	The Load break switch should have minimum spare 3 NO+ 3 NC auxiliary contacts and 1NO+1NC for earth switch. The load break switch shall be compatible for remote operation without any modification of the operating mechanism and without de-energizing the RMU, The LBS shall be fitted with an electrical operating mechanism and can remotely open-disconnected, closed and earthed from a reserved location.	LBS-Motorised ES -operation is Manual	Noted & Accepted
12	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.5.9 Circuit breaker: Page No: 11 of 32	CT shall be mounted on cables. The mounting arrangement shall be flexible to move to & fro, up and down based on site condition of cable terminations etc. The mounting arrangement shall ensure that the CT should not reach less than 300mm from live part of bushing. The CT mounting shall be fixed at position while dispatch such that the cable entry, the bushing terminal bolt, and CT core hole are co-axial.	CTs position will be fixed. CT Ratio can be decided based on requirement	Noted & Accepted
13	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.5.16 Circuit breaker: Page No: 11 of 32	The shunt trip coil shall be of 230V AC & wired up on TB	Shunt trip coil shall be 24V DC as per our existing supply since VCB is Motorised	The shunt trip coil shall be of 230V AC/24V DC.; However during detail engineering, it will be finalised
14	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.5.17 Circuit breaker: Page No: 11 of 32	The preferable make of relay is Ashida (ADR 241S), make relay.	SELF POWERED RELAY ADR241S-AM-760-09-01-28-01-00-10 Considered Ashida Relay -similar to our existing Supply	Noted, please ensure self Powered ,auto reset features having in the relay
15	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.6.11 Bushing & Cable Termination: Page No: 12 of 32	The cable cover door shall be pad lockable and shall be Tamper and Arc proof.	Cable covers are arc proof doors with bolted design Pad locking facility is not available .Cable cover interlock will be provided, instead of padlock.	Noted and accepted
16	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.6.3 Bushing & Cable Termination: Page No: 12 of 32	Bidder should provide bimetallic washer for connection between Copper bushing stud and Aluminium Lug	Not in bidder scope.-similar to our existing Supply	Kindly adhere to technical specifications.
17	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.6.3 Bushing & Cable Termination: Page No: 12 of 32	Termination boots shall be as per type tested design. And should have a proper opening to facilitate the testing. The opening in boot shall be covered by means of removable protection cap	Kindly note cable test rod will be not in supplier scope	Noted and accepted
18	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.7 Earthing: Page No: 13 of 32	The size of tinned copper earth bus-bar should be Min.105 sq.mm inside the enclosure to withstand short time current carrying capacity as per IEC	Earth Bus bar -Cu 120sqmm. RMU Earthing shall be strictly as per OEM type tested design and shall follow OEM standard .	Accepted , Instead of copper busbar ,tinned copper earth busbar is preferred
19	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.8 Voltage Indicator Lamps & Phase comparator: Page No: 13 of 32	The capacitive dividers will supply low voltage power to the indicator lamps. Three inlets can be used to check the synchronization of phases with phase comparator or another device. These devices shall be following IEC 62271-206:2011 standard.	Complied .Phase Comparator is not in bidder scope.	Noted and accepted.
20	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.10 :Fault Passage Indicator Page No: 14 of 32	Fault Passage Indicators shall be installed on the Ring Main Unit. These devices shall be electronic devices with dual energy source – with self-powered inbuilt battery and with provision of 24V DC aux supply	We shall offer FPI, C&S make of below details, Pls accept C&S MAKE SHORT CIRCUIT & EARTH FAULT INDICATOR CSFPI-E-C-H-C6-P3-E3-V3 ,SC+EF INDICATOR EARTH FAULT TRIP CURRENT:20/40/60/80A (±10%) ** EARTH FAULT RESPONSE TIME:40/80/200/300MS (±100MSEC.) SHORT CIRCUIT TRIP CURRENT:100/200/300/400/500/600/700/800/900/1000A/1100/1200A (±10%) SHORT CIRCUIT RESPONSE TIME:40/60/80/100/150/200/250/300MS (±100MSEC.) AUTO RESET TIME: 2/4/8/16 (+/-5%) HOURS AFTER FAULT EARTH FAULT SENSOR : SUITABLE TILL CABLE DIAMETER 140MM SC SENSOR MODEL NO. : CS-E-PS-D3-3 (QUANTITY:3NOS./INDICATOR) EF SENSOR MODEL NO. : CS-E-ES-D3-3 (QUANTITY:1NO./INDICATOR) RESET INPUT RANGE : 230V AC/DC INTERNAL BATTERY	Relay details required. FPI Bi directional required

21	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.11 :Remote control of RMU Page No: 15 of 32	LV Box at top (accessible from front side only)	Bidder scope is limited to provide Harting plugs & DI-DO's (to be installed in Top LV) & in reference with existing supply.	Harting Plugs and Pin arrangement is required.GA arrangement to be reviewed during GTP Approval stage.
22	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.11 :Remote control of RMU Page No: 15 of 32	Flag Indications on RMU when tripped should be on shunt trip. A provision for physical disconnection of motor supply (like fuse) of line isolator must be provided in RMU unit itself.	As per Standard OEM design & inline with Existing supply	Noted and accepted
23	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.11 :Remote control of RMU Page No: 15 of 32	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.)	As per standard design and inline with existing supply .No separate mechanism provided.	Noted and accepted
24	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.12 :Paint Page No: 16 of 32	The enclosure of the RMU shall be painted with shade light Grey, i.e. RAL 7032.	Paint shade shall be RAL 7035 & IS-632 DA Grey as per Bidder standars. The overall paint thickness shall be around 80 microns for OD applications	Noted and accepted paint thickness will be as per TS
25	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 5.14 :Control cabinet Page No: 16 of 32	Control cabinet shall have control cable entry arrangement on both sides of the RMU	As per Standard OEM design & inline with Existing supply	Noted. Will be reviewed during GTP Approval stage.
26	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 8.0 :Type test Page No: 20 of 32	The Bidder shall furnish the type test certificates of the 33KV RMU of same design as offered in bid for the tests as mentioned above as per the corresponding standards. All the tests shall be conducted at CPRI/ERDA or reputed International Laboratory like PHELA, KEMA IPH, etc. as per the relevant standards of IS and IEC	Noted .Offered RMU's are designed & type tested as per applicable IEC standards We do not envisage to do re type tests on the product We shall submit the undertaking in company letter head.	Noted and accepted
27	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 7.2 & 7.3 :Routine & Acceptance Test Page No: 18 of 32	Routine Tests & Acceptance tests	Noted. Shall be as per OEM approved & standard QAP procedure & inline with earlier supply standard .	Noted,However QAP to be reviewed and approved byTP Odisha DISCOM Quality Team
28	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 17.0 :Mandatory Spares Page No: 22 of 32	Mandatory item :CABLE CONNECTING BOLTS WITH WASHERS	Not in bidder scope	Kindly adhere to technical specifications.
29	Document No: Specification No: TPU-D-ENG-EHV-10068 Clause No: 17.0 :Mandatory Spares Page No: 22 of 32	SPARES,ACCESSORIES &SPECIAL TOOLS/GAUGES	As RMU is a Secondary gas insulated switchgear so hardly any maintenance is required on RMU so we don't recommend for any mandatory or commissioning spares to keep at site for RMU . Bolt for cable connection/RMU PCB card/L key doesn't fall under under any mandatory commisioning spares. We suggst VPIS,manometer,Trip Coil ,FPI,Motor mechanism etc for keeping as spares if at all required	Kindly adhere to technical specifications. Cable Connecting Bolts With Washers are mandatory spares as per Ts clause no 17.0.
Sr. No.	Tender Reference (Document name/Page no./Clause no./Clause name)	Short Description as per Bid Document	Pre-Bid Query raised by Bidder	DISCOM Response
1	2	3	4	5
1	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 1. SCOPE: Page No: 4 of 36	This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and performance of 11kV Ring Main Units with all accessories and necessary training for trouble free & efficient performance.	Bidder scope is limited to design, engineering, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site Storage is not in Bidder scope	Same as point No 1
2	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 4.21 GENERAL TECHNICAL REQUIREMEN TS OF RMU: Page No: 6 of 36	Maximum permissible temperature rise for bus bar shall not be 65°C at an ambient temperature not exceeding 40°C, as per IEC 62271-1. However, the temperature rise for accessible enclosures and covers shall not exceed 30K and in case, they are not required to be touched during normal operation, the limit shall be raised by 10K	As per IEC standard and OEM Type tested Design	Noted and accepted
3	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 4.23 GENERAL TECHNICAL REQUIREMEN TS OF RMU: Page No: 6 of 36	Normal RMU should have provision for Motor fixation in LBS compartment. Motorized and Smart RMU shall have Motorized LBS and CB compartment	Noted,as per OEM Type tested Design and inline with Existing TP Discom Supply	Noted and accepted

4	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 4.24 GENERAL TECHNICAL REQUIREMENTS OF RMU: Page No: 6 of 36	Electrical interlock for live cable presence indicator and operation of earth switch in RMU incoming cable compartment of LBS	PADLOCKING PROVISION IS PROVIDED FOR BLOCKING EARTH SWITCH OPERATION OF MODULES. BEFORE OPERATING EARTHING SWITCH,CUSTOMER NEED TO ENSURE VPIS INDICATION ABSENCE & HT CABLE HIGH VOLTAGE ABSENCE.PADLOCK SHALL BE ADDED AT SITE BY CUSTOMER SO AVOID OPERATION OF EARTH SWITCH BY UNAUTHORISED PERSON. EARTH SWITCH OPERATION IS NOT INTERLOCKED WITH CABLE LIVE CONDITION.	Note & accepted The operating instruction for Earthswitch shall be pasted near the operating handle.
5	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 4.24 GENERAL TECHNICAL REQUIREMENTS OF RMU: Page No: 6 of 36	RMU Configurations: 1.Normal -1/2/3/4/5way,Outdoor,Non Ext,FPI in each LBS module 2.Motorised -1/2/3/4/5way,Outdoor,Non Ext,FPI in each LBS module 3.Smart -1/2/3/4/5way,Outdoor,Non Ext,FPI in each LBS module	As per BOQ schedule Lot-1 (Supply of 11 kV RMU)	As per tendered BOQ item list
6	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.1 GENERAL CONSTRUCTION FOR RMU:Main Tank Page No: 7 of 36	The tank shall have SS sheet of 2.5 mm thickness minimum (or as per type tested design of bidder with undertaking on letter head) and meet the "sealed pressure system" criteria in accordance with the IEC 62271-200	The SF6 Tank made of SS304 -Thickness 2mm (upto 3way)/2.5 mm (for 4 & 5 way) as per Type tested design & in line with existing supply	Noted and accepted
7	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.2.2 GENERAL DETAILS Page No: 7 of 36	The RMU shall be suitable for mounting on plinth with trench below and shall have base frame on sides with mounting bolt accessibility from outside of RMU the mounting bolts provision shall be min. M12 bolts on all four sides.	Mounting Bolt is not in Bidder scope for supply	Noted and accepted
8	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.2.3 GENERAL DETAILS Page No: 7 of 36	The RMU shall be identified by visible font sized permanent painting (UV resistant and durability to be maintained throughout the full operational life of the RMU) which clearly indicates the functional units and their operation directions etc. The ON or OFF shall be marked as words and only I/O labelling shall not suffice	Shall be as per OEM type tested design & in line with Existing supply	Noted and accepted
9	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.2.5 GENERAL DETAILS Page No: 7 of 36	The earth bus bar shall be covered if passing through the cable chamber and enclosed in an enclosure housing to prevent theft/tampering. Only extension outside enclosure shall open for Access	As per OEM type tested Design & as per the existing supply	Noted and accepted
10	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.2.8 GENERAL DETAILS Page No: 8 of 36	The LBS /CB shall not be closed in case Earth Switch is closed. The earth switch shall be fitted with its own operating mechanism and manual closing shall be driven by a fast-acting mechanism, independent of operator action. 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.	The CB operation is independent of ES operation. PADLOCKING PROVISION IS PROVIDED FOR BLOCKING EARTH SWITCH OPERATION OF MODULES. BEFORE OPERATING EARTHING SWITCH,CUSTOMER NEED TO ENSURE VPIS INDICATION ABSENCE & HT CABLE HIGH VOLTAGE ABSENCE.PADLOCK SHALL BE ADDED AT SITE BY CUSTOMER SO AVOID OPERATION OF EARTH SWITCH BY UNAUTHORISED PERSON. EARTH SWITCH OPERATION IS NOT INTERLOCKED WITH CABLE LIVE CONDITION.	Noted and accepted If the CB operation is independent of ES operation., then Electrical interlock should be there between VPIS & EarthSwitch.
11	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.2.10 GENERAL DETAILS Page No: 8 of 36	The default design of cable compartment shall be 1run 3Cx400 sq. mm 11 kV or 1run 3 nos. 1Cx630 sq. mm 11kV UG or 1run 3 nos. 1Cx185 sq. mm 11kV UG, XLPE, armoured. However, actual size of cable to be decided during tendering/detailed Engineering.	for 11kV Cable compartment is designed for 1R x 3C x 400sqmm or 1run 3 nos. 1Cx185 sqmm.630sqmm cable entry is not possible in 11kV Cable chamber.	Noted and accepted
12	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.2.13 GENERAL DETAILS Page No: 8 of 36	The main bus bar current density shall be less than 2.7A/sq.mm.	As per OEM type tested Design & as per the existing supply .Since it is a secondary gas insulated switchgear all the Phase Bus bars will be inside SF6 insulated Tank of suitable dimensions as per type tested design.	Noted and accepted
13	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.2.16 GENERAL DETAILS Page No: 8 of 36	For each terminals bolt should be provided with Cup or Belleville Washer and flat washers. (Note The cut spring washers are not accepted)	Terminal Bolt,washer is not in Bidder scope for supply	Cable Connecting Bolts With Washers are mandatory spares as per TS clause no 17.0. Kindly adhere to technical specifications.
14	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.4.10 GENERAL DETAILS Page No: 9 of 36	The load break switch shall be compatible for manual & remote operation without any modification of the operating mechanism and without de- energizing the RMU, The LBS shall be fitted with an electrical operating mechanism and can remotely open-disconnected, closed and earthed from a reserved location	Noted. However Earth Switch Operation is Manual	Noted and accepted

15	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.4.10 GENERAL DETAILS Page No: 9 of 36	The Load break switch should have minimum spare 3 NO+ 3 NC auxiliary contacts, additionally for TPDDL, 4 NO + 4 NC contacts are required for isolator as spare. Earth Switch shall have 1 NO + 1 NC auxiliary contacts, additionally for TPDDL, 1 NO + 1 NC contacts are required for Earth as spare	Additional spares can be provided using contact Multiplier	Noted and accepted
16	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.5.17 Protection Relay Page No: 10 of 36	Protection Relay	SELF POWERED ADR241S NEW NANO RELAY MODEL NO.: ADR241S-AM-460-09-01-36-01-00-10 Communication Protocol-IEC 103,Modbus AUX. SUPPLY : 24 - 50 VDC;CT SEC.: 1A TRIPPING CURRENT CAN BE SET 20% TO 240% IN STEPS OF 1% FOR PHASE & 10% TO 120% IN STEP OF 1% FOR EARTH FAULT CABINET SIZE: CSH (110 x 160mm) CABINET TYPE: Non-DRAW OUT MAKE: ASHIDA As per our existing supply	As per TS.
17	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.5.18 Page No: 10 of 36	The terminal protectors to be supplied with the 11 KV RMU by the vendor along with the cable termination bolt for termination 185 Sq. mm 11kV 1C cable in breaker & 300 Sq. mm 11kV 3 C for isolator compartment	For 11kV Terminal Protector (Boots) in our scope of supply .Cable termination Bolt or Heat shrink kit is not in Bidder scope.	Kindly adhere to technical specifications.
18	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.5.16 Page No: 10 of 36	The shunt trip coil shall be of 230V AC/24V DC along with charger and complete wiring up to trip coil through DC MCB and MCB arrangement for AC charger	Shunt trip coil shall be 24V DC as per our existing supply since VCB is Motorised	The shunt trip coil shall be of 230V AC/24V DC.
19	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.6.1: Bushings & Cable Terminations Page No: 10 of 36	Bushing should be of Epoxy resin. Each cable compartment shall be provided with three bushings of adequate sizes to terminate the incoming and outgoing cables. The termination bolt shall be stainless steel and M16 size	As per OEM type tested design & inline with previous supply	Noted and accepted
20	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.6.4: Bushings & Cable Terminations Page No: 10 of 36	The Terminal bolt shall have arrangement for fixing the cable test rod through cable boot opening. Cable boot should have opening for test rod insertion	Cable test Rod is not in bidder supply scope	Noted and accepted
21	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.6.12: Bushings & Cable Terminations Page No: 10 of 36	In outdoor RMU the door should have pad lock provision	Cable covers are arc proof doors with bolted design Pad locking facility is not available in cable door .Cable cover interlock will be provided, instead of padlock.	Noted and accepted
22	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.6.11: Bushings & Cable Terminations Page No: 10 of 36	All cable compartments shall have front door opening. The cable cover door shall be pad lockable and shall be Tamper and Arc proof. The circuit breaker and earth switch shall be lockable in the open or closed positions by 1 to 3 padlocks	As per OEM design, 1 padlock can be provided for 11kV RMU	Noted and accepted
23	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.7 Earthing Page No: 11 of 36	The size of tinned copper earth bus-bar should be Min.105 sq.mm inside the enclosure to withstand short time current carrying capacity as per IEC	Earth Bus bar -Cu 120sqmm. RMU Earthing shall be strictly as per OEM type tested design and shall follow OEM standard .	Bus bar should be of tinned copper earth bus-bar instead of Cu
24	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.8 Voltage Indicator Lamps & Phase Comparators Page No: 11 of 36	There should be electrical interlock of cable presence indicator and operation of earth switch in RMU incomer cable compartment of LBS.	Cable back charge earth switch interlock is not available. If the cable is charged VPIS shall glow continuously, The operator should observe the VPIS before closing the earth switch.Same point is covered in SI No 10	SOP & instruction needs to be fixed on the RMU front door.
25	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.8.1 Voltage Indicator Lamps & Phase Comparators Page No: 11 of 36	The capacitive dividers will supply low voltage power to the indicator lamps. Three inlets can be used to check the synchronization of phases with phase comparator or another device. These devices shall be following IEC 62271-206:2011 standard.	Complied .Phase Comparator is not in bidder scope.	Noted and accepted

26	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.10 :Fault Passage Indicators Page No: 12 of 36	FAULT PASSAGE INDICATORS Fault Passage Indicators shall be installed on the Ring Main Unit. Offered FPI shall give Fault Detection status with direction. These devices shall be electronic devices with dual energy source – with self-powered inbuilt battery and with provision of 24V DC aux supply. It must be connected to Single 3 phase Split Core CTs for O/C.	We are offering FPI, C&S make. Short Circuit & Earth Fault Indicator, TYPE : CSFPI-E-C-H-C5, SHORT CIRCUIT TRIP CURRENT:100/200/300/400/500/600/700/800/900/1000A/1100/1200A (±10%) SHORT CIRCUIT RESPONSE TIME:40/60/80/100/120/160/200/240MS (±100MSEC.) Operating Point/Current Earth Fault- 10/ 20/ 30/ 40/ 60/ 80/ 100 A (±10%) ** Response Time : 40 / 60 / 80 / 160 ms (+100mSec), Auto Reset Time:1 / 2 / 4 / 8 (+5%) hours SC Sensor Model No. : CS-E-PS-D3-3 (Quantity : 3Nos./Indicator) EF Sensor Model No. : CS-E-ES-D3-3 (Quantity : 1No./Indicator) Reset input range : 24V DC, Internal Battery.	Kindly adhere to technical specifications.
27	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.11 :Remote Control of RMU Page No: 13 of 36	A.For Non Motorised RMU B.For Motorised RMU C. For Smart RMU	In line with ongoing RC, Bidder is not quoting the cost of FRTU neither separately nor inclusive with RMU Bidder scope is limited to provide Harting plugs & DI-DO's	Noted However, any signal integration over hardwiring & MODBUS for RMU is in the scope of Vendor Accepted. Harting Plugs and Pin arrangement is required. GA arrangement to be reviewed during GTP Approval stage.
28	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.11 :Technical Details of Aux PT Page No: 13 of 36	Technical details of Auxiliary PT (2 core) For smart RMU only	Aux PT 11kV/Rt3/230V Single Phase as per our existing supply	Adhere to TS
29	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.12 Page No: 19 of 36	In each cable compartment each bushing shall have temperature sensors.	Temperature sensors not considered and its inline with earlier supply.	Kindly adhere to technical specifications.
30	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 5.12 :Paint Page No: 19 of 36	All paint shall be applied on clean dry surfaces under suitable atmospheric conditions by seven tank process and powder coating. The overall paint thickness shall be 70 to 125 microns. (will be decided by user at the time of issuance of tender as per site requirement). The paint Type text here shall not scale off or crinkle or be removed by abrasion during normal handling. The enclosure of the RMU shall be painted with shade Dark Gray, i.e., BS381C or RAL 7032	Paint shade shall be RAL 7035 /7043 as per Bidder standards. The overall paint thickness shall be around 80 microns for OD applications	As per TS
31	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 8.0 :Type test Page No: 24 of 36	The Bidder shall furnish the type test certificates of the 33KV RMU of same design as offered in bid for the tests as mentioned above as per the corresponding standards. All the tests shall be conducted at CPRI/ERDA or reputed International Laboratory like PHELA, KEMA IPH, etc. as per the relevant standards of IS and IEC	Noted .Offered RMU's are designed & type tested as per applicable IEC standards We do not envisage to do re type tests on the product We shall submit the undertaking in company letter head.	Noted and accepted
32	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 7.2 & 7.3 :Routine & Acceptance Test Page No: 22/23 of 36	Routine Tests & Acceptance tests	Noted. Shall be as per OEM approved & standard QAP procedure & inline with earlier supply standard .	Noted, However QAP to be reviewed and approved by TP Odisha DISCOM Quality Team
33	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 18.0 :SPARES, ACCESSORIES & SPECIAL TOOLS/ GAUGES Page No: 26 of 36	The mandatory items with each RMU	Cable connecting bolts, Screw, washers are not in bidder scope other than that FPI, Bushings, Opt Handle, Push buttons, cable boots are part of RMU standard offering.	Kindly adhere to technical specifications.
34	Document No: Specification No: TPU-D-ENG-EHV-20054 Clause No: 18.0 :SPARES, ACCESSORIES & SPECIAL TOOLS/ GAUGES Page No: 26 of 36	SPARES, ACCESSORIES & SPECIAL TOOLS/ GAUGES	As RMU is a Secondary gas insulated switchgear so hardly any maintenance is required on RMU so we don't recommend for any mandatory or commissioning spares to keep at site for RMU . Bolt for cable connection/RMU PCB card/L key doesn't fall under any mandatory commissioning spares. We suggest VPIS, manometer, Trip Coil , FPI, Motor mechanism etc for keeping as spares if at all required	Kindly adhere to technical specifications. Cable Connecting Bolts With Washers are mandatory spares as per Ts clause no 17.0.
Sr. No.	Detailed Reference to TPSODL Tender Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	DISCOM Response
1	2	3	4	5
5	Document No: TPCODL / CCG /24-25/100003054 Clause No: 6.3 Period of Validity of Bids	Bids shall remain valid for 180 days from the due date of submission of the bid.	Bids shall remain valid for 60 days from the due date of submission of the bid.	Tender Terms & conditions shall prevail

7	Document No: TPCODL / CCG /24-25/100003054 Clause No: 2 : Special Conditions of Contract	Prices shall be on FOR Basis, inclusive of Transit Insurance/ Packing & Forwarding charges and shall be inclusive of unloading & stacking at DISCOM site / store locations.	Our scope is limited to Prices shall be on FOR Basis, inclusive of Transit Insurance/ Packing & Forwarding charges and shall be inclusive of unloading store locations.	Tender Terms & conditions shall prevail
8	Document No: TPCODL / CCG /24-25/100003054 Clause No: 6 : Special Conditions of Contract Page No: 16	Delivery period shall be 90 days from date of issuance of RO/ CAT- A approval, whichever is later.	Delivery period shall be 120 days from date of issuance of RO/ CAT- A approval, whichever is later.	Tender Terms & conditions shall prevail
10	Goods/Material/Equipment delivered in condition physically damaged & incomplete as a product ordered, or not packed and transported as per the terms and conditions of the contract is liable to be rejected. Such item shall be lifted back by Associates within 15 days from receipt of rejection note from TPWODL/TPCODL/TPNODL/TPSODL and have to supply back the material within next 30 days or within the timeframe mutually decided by Associate and TPWODL/TPCODL/TPNODL/TPSODL	Goods/Material/Equipment delivered in condition physically damaged & incomplete as a product ordered, or not packed and transported as per the terms and conditions of the contract is liable to be rejected. Rejection note for such rejected material shall be issued by TPWODL within 15 days from the date of receipt of material at site. Such item shall be lifted back by Associates within 15 days from receipt of rejection note from TPWODL and have to supply back the material within next 30 days or within the timeframe mutually decided by Associate and TPWODL/TPCODL/TPNODL/TPSODL		Tender Terms & conditions shall prevail
11	TPWODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPWODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.	TPWODL/TPCODL/TPNODL/TPSODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPWODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.		Tender Terms & conditions shall prevail
12	The Warranty period for such replaced parts shall be until the expiry of twelve months from the date of such replacement or renewal or until the end of original Guarantee period, whichever is later.	The warrantee period of replaced parts shall be same as that of original equipment.		Tender Terms & conditions shall prevail
13	In case the Associate is not able to rectify/ replace the faulty equipment/ material within the stipulated timelines as mentioned above, penalty shall be levied as per the Liquidated Damages clause mentioned in this document. The penalty amount shall be recovered from the payment due to the vendor or by encashment of the SPBG as the case may be.	Said clause shall be removed		Tender Terms & conditions shall prevail
14	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.	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.		Tender Terms & conditions shall prevail
15	For delay of each week and part thereof from the delivery schedule specified in the contract, 1% of contract value corresponding to undelivered quantity, provided full quantity is supplied within 130% of the original contract time. If full contractual quantity is not delivered within 130% of contract time for delivery, TPWODL has the right to levy LD on the entire contract value, subject to a maximum of 10% of the total contract value.	For delay of each week and part thereof from the delivery schedule specified in the contract, 0.5% of contract value corresponding to undelivered quantity, provided full quantity is supplied within 130% of the original contract time. If full contractual quantity is not delivered within 130% of contract time for delivery, TPWODL has the right to levy LD on the entire contract value, subject to a maximum of 5% of the total contract value.		Tender Terms & conditions shall prevail
16	liquidated damages	- LD shall be computed on the undelivered lot upto the max LD limit. - LD shall be exclusive remedy for delay and in full satisfaction. Under the contract, TPWODL shall first exhaust the LD max limit before resorting to any other remedy available under the contract.		Tender Terms & conditions shall prevail
17	Title to technical specifications, drawings, flow sheets, norms, calculations, diagrams, interpretations of test results, schematics, layouts and such other information, which the Associate has supplied to the TPWODL under the Contract shall be passed on to the TPWODL/TPCODL/TPNODL/TPSODL	Title Ownership to technical specifications, drawings, flow sheets, norms, calculations, diagrams, interpretations of test results, schematics, layouts and such other information, which the Associate has supplied to the TPWODL under the Contract shall be passed on to the TPWODL/TPCODL/TPNODL/TPSODL		Tender Terms & conditions shall prevail
18	Intellectual Property Rights	Any intellectual property developed or acquired by Associate during course of contract shall be owned by Associate. TPWODL will such rights as granted by Associate in intellectual property so developed.		Tender Terms & conditions shall prevail

19	Indemnity	The Associate assumes responsibility for and shall indemnify and save harmless the TPWODL from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court costs which are or may be required to be paid by the TPWODL and its officers, directors, employees, affiliates, agents, successors and assigns arising from any breach of the Associate's obligations under any local or national law or laws, or in respect to all salaries, wages or other compensation for all persons employed by the Associate or his Sub-Associates or suppliers in connection with the performance of any work covered by the Contract.		Tender Terms & conditions shall prevail
20	Liability & limitations	Notwithstanding any provision to the contrary. Associate shall not be liable for any special, incidental, indirect, or consequential Damages or any loss of business Contracts, revenues or other financial loss (or equivalents thereof no matter how claimed, computed or characterized) arising out of or in connection with the Performance of the Work or supply of Goods unless caused by Associate's gross negligence, or willful misconduct		Tender Terms & conditions shall prevail
21	Termination for convenience of TPWODL	In case of termination for convenience of TPWODL, Associate shall also be paid for the cost of work in progress along with supplies/services rendered until date of termination.		Tender Terms & conditions shall prevail
Sl. No.	Tender Reference (Document name/Page no./Clause no./Clause name)	Pre-Bid Query raised by Bidder	Bidder Proposal	DISCOM Response
1	Tender Document_Supply of 33 & 11 kV RMU page no. 18 of 32	Annexure 1- Price Schedule	Kindly confirm HTMU, We are considering it as HT metering unit. kindly provide details for Metering unit like CT & PT ratio, accuracy class, burden etc.	Please refer TS of HTMU; However CT ratio will be finalised during detailed engineering
2	TPU-D-ENG-HV-20054, page no 8 of 36, Clause No: 5.1.9	All configuration should be in one tank without any coupling/joint on main bus bar	Please note that, for better flexibility, we will provide up to 4Way RMU in single tank and there after it will be add on module.	Noted and accepted
3	TPU-D-ENG-HV-20054, page no 8 of 36, Clause No: 5.2.9	All panel covers shall be provided with anti-vandal screw bolts so that the opening of panel covers is only possible with special tools, which shall be provided by the bidder as mandatory spare/tool	Kindly allow as per manufacturers standard design	TS to be followed
4	TPU-D-ENG-HV-20054, page no 11 of 36, Clause No: 5.6.11	The cable cover door shall be pad lockable and shall be Tamper and Arc proof.	Cable covers are with tamper, arc proof, fully interlock with Earth switch and bolted type. Kindly allow as per manufacturers standard design	Noted and accepted
5	TPU-D-ENG-HV-20054, page no 11 of 36, Clause No: 5.7.3	The size of tinned copper earth bus-bar should be Min.105 sq.mm inside the enclosure to withstand short time current carrying capacity as per IEC.	We Will Provide copper earthing inside the main tank & GI earthing outside the tank. Kindly confirm	Accepted. Copper earth bus should run throughout all compartments.
6	TPU-D-ENG-HV-20054, page no 11 of 36, Clause No: 5.8	The VPIS without dip ports are not accepted	VPIS will be provided with SCADA contacts, kindly elaborate "The VPIS without dip ports are not accepted"	Kindly adhere technical specification Dip ports for insertion of phase comparators or line tester to check the phase sequence or presence of charge in cable. TS to be followed
7	TPU-D-ENG-HV-20054, page no 11 of 36, Clause No: 5.9.10	The Direction of operation shall be clock wise for any close operation and anticlock wise for any open operation of disconnector / LBS and earth switch	Kindly allow us as per the manufactures standard	Noted and accepted and direction to be properly painted (non washable type) on door
8	TPU-D-ENG-HV-20054, page no 12 of 36, Clause No: 5.9.15	c) Electrically reset from remote with at least 2 spare potential free contacts.	Kindly share approved make & model no	approved make & model is enclosed in the annexure
9	TPU-D-ENG-HV-20054, page no 13 of 36, Clause No: 5.11	Non Motorised/Motorised/Smart RMU	Kindly confirm requirement for RMU. i.e Non Motorised/Motorised/Smart RMU	Should be non-motorized/motorized/smart as per the requirement of the Discoms/ tender BOQ and TS to be followed for the same.
10	TPU-D-ENG-HV-20054, page no 13 of 36, Clause No: 5.11	For Motorised RMU: The On/Off Push button of LBS and VCB shall be illuminated type with inbuilt LED indicating presence of electrical supply	Kindly allow us as per the manufactures standard	To be finalised During Detailed Engineering
11	TPU-D-ENG-HV-20054, page no 14 of 36, Clause No: 5.11	1 No. Surge Protection Device to be provided for the relay communication ports for protection from external surge.	Kindly Elaborate	Kindly adhere technical specification
12	TPU-D-ENG-HV-20054, page no 14 of 36, Clause No: 5.11	There shall be harting plug arrangement for individual Isolator as well as breaker motor connections, which will be fitted on the RMU body itself	Kindly allow us as per the manufactures standard	Accepted. Harting Plugs and Pin arrangement is required. GA arrangement to be reviewed during GTP Approval stage.

13	TPU-D-ENG-HV-20054, page no 14 of 36, Clause No:5.11	For Motorised RMU: Both the LBS should be wired up for auto changeover scheme. And CB to be wired up for Autorecloser Scheme/feature	Kindly Elaborate the requirement.	Refer TS_FRTU for auto changeover scheme
14	TPU-D-ENG-HV-20054, page no 14 of 36, Clause No:5.11	C. For Smart RMU: a) The smart RMU shall be motorized in LBS and CB also. This shall also have FRTU of TATA POWERDDL approved make and approved models viz. Siemens, ABB, Schneider etc. (updated list shall be shared during pre-bid meeting) & shall have auxiliary PT having 1000VA burden for power supply to the FRTU, relay and DC battery charger.	We are considering approved makes Bidder-RTU 540, RTU 530, SIEMENS: A8021, Schneider T300, Wago 750-8212, Phoneix. Also Request to share Approved make for Modem.	Please ensure all the make and model are fulfilling all of our requirement
15	TPU-D-ENG-HV-20054, page no 15 of 36, Clause No:5.11	harting plug arrangement to be provided on each feeder of RMU	Kindly allow us as per the manufactures standard	Accepted. Harting Plugs and Pin arrangement is required. GA arrangement to be reviewed during GTP Approval stage.
16	TPU-D-ENG-HV-20054, page no 15 of 36, Clause No:5.11	4 Nos. spare relay tripping NO,NC contacts to be provided	We shall provide two changeover contact for the same.	Spare 2NO/NC contacts for relay tripping to be provided.
17	TPU-D-ENG-HV-20054, page no 17 of 36, Clause No:5.12	Minimum 800mm from base plate to bushing bolt center for proper termination space	The offered RMU shall have a distance of 760 mm approx. from the base plate to the center of the bushing bolt, in accordance with the type-tested design	Need to supply the termination kit, which will be compatible with 760 mm height of bushings.
18	TPU-D-ENG-HV-20054, page no 19 of 36, Clause No:5.12	Battery Charger Isolation voltage and auto boost mode: In the range of 4000V.	Kindly Elaborate	For Surge protection, range is required upto 4K V
19	TPU-D-ENG-HV-20054, page no 25 of 36, Clause No:14	Training / Supervision Mandays	Request you to please clarify the No. of Mandays required for Training & Supervision if any.	The bidder shall arrange to provide the installation and operating training at our offices as and when required for better installation and usage of the product. It is preferred that the service engineer present during installation shall arrange to provide the operation training of RMU to the staff during installation and inform about the critical points. In addition to this for new bidder, new product or change in design the bidder has to provide minimum one training sessions at each District office of Discom (for TPDDL and TPC -Mumbai) /one training sessions at concern circle office of Discom (for TPCODL/TPNODL/TPSODL/TPWODL). In addition to above bidder to share Digital /Video based training module for safe operation of RMU in pen drive.
20	TPU-D-ENG-HV-20054, page no 26 of 36, Clause No:18	SPARES, ACCESSORIES & SPECIALTOOLS / GAUGES	Prices for spares list will be submitted separately, not to be included in the bid. Please confirm.	Spares shall be supplied on Free of Cost Basis along with RMUs. Please refer revised Price bid attached with Corrigendum for better clarity.
21	TPU-D-ENG-HV-20054, page no 34 of 36	FRTU DI & DO	Kindly confirm the DI & DO list for FRTU	Refer TS-FRTU as well as RMU
Sl. No.		Tender Reference (Document name/Page no./Clause no./Clause name)	Pre-Bid Query raised by Bidder	DISCOM Response
1		2.0 Pre- Qualification Criteria (A) (1)	2 Nos Performance certificates of OEM Partner considered for Evaluation ? As Bidder is participating through Authorization letter(MAF) from OEM	Tender terms & conditions shall prevail
2		2.0 Pre- Qualification Criteria (B) Financial Pre-Qualification Requirements (1) Commercial Capability	1) as per the Tender, average Turnover required is 50Cr. We requesting amend the Requirement to 9 Cr. Or 2) Accept Cumulative of Turnover to be 49 Cr of last 5 Fy. From FY 2019-20 to 2023-24	Tender terms & conditions shall prevail
3		2.0 Pre- Qualification Criteria	requesting to consider OEM credentials of Technical & Financials to authorised partner, as TATA Power Groups are Considering.	Tender terms & conditions shall prevail
Sl. No.		Tender Reference (Document name/Page no./Clause no./Clause name)	Pre-Bid Query raised by Bidder	DISCOM Response
1		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Cyber Security	FRTU shall comply to IEC 62351-3 for Communication between FRTU and Master Station and IEC 62443-4-2 for Product Cyber Security. Please find Annexure A of RDSS FRTU Document mandating Cyber Security for Comprehensive Protection	IEC 60870-5-7 Telecontrol equipment and Systems – Part 5-7; Transmission protocols – Security extensions to IEC 60870-5-104 protocol (Applying IEC 62351). IEC 60870-5-7 Security extension & IEC 62351 series (IEC 62351-100 parts 1 & 3)
2		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Power Supply	The FRTU shall be powered up from the 18-72VDC (24/28 VDC) Power Supply. For FRTU's 24x7 availability, Redundant Power Supply with Mosfet based Oring shall be used.	Inline with RMU control voltage (24V or 48 V DC). However, the FRTU with support of 18-72VDC is preferred.

3		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Annexure – IV: Preferred/Approved Make of Equipment/System	Approved vendor list in previous tender with Tender no :TPCODL/CCG/2024-25/100002369 is different to approved vendor list attached provided in this Tender. Several Line items are also not mentioned (Surge Protection Device, Contact Multiplying relay etc) which is required in this tender Kindly Confirm which Approved Vendor List to follow. Kindly find Annexure B for your reference	Bidder to adhere the approved vendor list enclosed in the Tender documents. Any line items required as per the solutions should be offered from Reputed Make for T&D function and had credentials. This will be evaluated during TER as per the GTP & product support documents.
4		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Annexure – IV: Preferred/Approved Make of Equipment/System - FRTU	We have supplied FRTU to TPWODL with RMU and request you to kindly add Phoenix make name also to the Existing Vendor List. It shall be read as Bidder / SIEMENS / SCHNEIDER / GE / Synergy/ Phoenix/Reputed Make for T&D function	The approved vendor list enclosed in the Tender documents had mentioned "Reputed Make for T&D function". Bidder to offer Products which had credentials fulfilling the GTP with relevant product support documents (Type test/Product life cycle/catalogue/ performance certificate etc.) Phoenix make FRTU not acceptable as Performance feedback at TP odisha DISCOM is not satisfactory
5		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Annexure – IV: Preferred/Approved Make of Equipment/System - Layer 2 Managed Ethernet Switch	We have already supplied Layer 2 Managed Ethernet Switch to TPSODL through our System Integrator and also attached Annexure C approvals for your reference. We request you to kindly add Phoenix make name also to the Existing Vendor List. It shall be read as Ruggedcom / Hirschman / MOXA/CISCO/ Phoenix/ Equivalent	The approved vendor list enclosed in the Tender documents had mentioned "Reputed Make for T&D function". Bidder to offer Products which had credentials fulfilling the GTP with relevant product support documents (Type test/Product life cycle/catalogue/ performance certificate etc.) TPCODL has no experience of Phoenix Switch, hence user experience from other Sister Organisation (TPSODL) will be considered during evaluation.
6		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Annexure – IV: Preferred/Approved Make of Equipment/System - Droppable type Terminal Block for Digital Output, CT & PT	Phoenix Contact is a well known name in Terminal Blocks and Tata Power is also using the same in many cases also attached Annexure C approvals for your reference. Requesting Tata Power to kindly add Phoenix make name also to the Existing Vendor List. It shall be read as Connect well-CKT 4U / Phoenix- TB 4MT EI / Equivalent	Noted & Accepted
7		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Annexure – IV: Preferred/Approved Make of Equipment/System - Disconnecting type (Knife edge) Terminal Block for Digital Input	Phoenix Contact is a well known name in Terminal Blocks and Tata Power is also using the same in many cases also attached Annexure C approvals for your reference. Requesting Tata Power to kindly add Phoenix make name also to the Existing Vendor List. It shall be read as Connect well-CBT 4U / Phoenix- RBU 5-T-E / Equivalent	Noted & Accepted
8		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Annexure – IV: Preferred/Approved Make of Equipment/System - Multifunction Meter	Phoenix Contact is a well known name in Multifunction Meter and attached Annexure C approvals for reference . Requesting Tata Power to kindly add Phoenix make name also to the Existing Vendor List. It shall be read as SATEC/ Secure / Rishav / Accord / Phoneix/ Equivalent	Bidder to adhere the approved vendor list enclosed in the Tender documents. Any line items required as per the solutions should be offered from Reputed Make for T&D function and had credentials. This will be evaluated during TER as per the GTP & product support documents.
9		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Annexure – IV: Preferred/Approved Make of Equipment/System - Auxiliary Relays	Phoenix Contact name is mentioned in the approved vendor list of Tender no : we request Tata Power to kindly add Phoenix name in this vendor list also. It shall be read as OMRON / Bidder / Sulzer / OEN / Paramount/ Phoenix / Equivalent	Bidder to adhere the approved vendor list enclosed in the Tender documents. Any line items required as per the solutions should be offered from Reputed Make for T&D function and had credentials. This will be evaluated during TER as per the GTP & product support documents.

10		Technical Specification of FRTU(Feeder Remote Terminal Unit) for RMU-- Annexure – IV: Preferred/Approved Make of Equipment/System- Surge Protection Device	Surge Protection Device line item is missing	SPD for any reputed make for serial & ethernet communication is acceptable with GTP & product support documents. It is integral part of power supply
Sl. No.		Tender Reference (Document name/Page no./Clause no./Clause name)	Pre-Bid Query raised by Bidder	DISCOM Response
1		11kV RMU Specs/6 of 36/Clause No 4/General Technical requirements/Sr. No 21	As per IEC 62271-1, latest amendment 2021, maximum permissible temp rise is 75 DegC at ambient temp of 40 Deg C, instead of rise of 65 DegC. Kindly amend the same	Accepted. Should be as per IEC standard
2		11kV RMU Specs/9 of 36/Clause No 5.4.9/Incomer Load Break Switch	LBS shall have max. 4 C/O contact as spares. E/S shall have max. 2 C/O contact as spares. Kindly accept the same.	Noted and accepted
3		11kV RMU Specs/9 of 36/Clause No 5.5.6/Circuit Breaker	CB shall have max. 3NO & 4NC contact spares.	Noted and accepted
4		11kV RMU Specs/19 of 36/Clause No 5.12/S.No.30	For RMU without FRTU, Battery capacity of is define 26AH. Request you to provide the Battery Capcity or RMUs with FRTU.	As per TS of FRTU
5		11kV RMU Specs/19 of 36/Clause No 5.12/S.No.31	We propose addition of Mahamai Make for charger in approved list, kindly accept.	Noted and accepted ,Ensure Charger output is 10A and above
6		11kV RMU Specs/29 of 36/Clause No 20/S.No.22	As per IEC 62271-1, latest amendment 2021, maximum permissible temp rise is 75 DegC at ambient temp of 40 Deg C, instead of rise of 40 DegC. Kindly amend the same.	Noted and appreciable
7		11kV RMU Specs/30 of 36/Clause No 20/S.No.39	We propose addition of C&S make for relay in approved list, kindly accept.	Discussion is Going On , will intimate once it will confirmed.
8		11kV RMU Specs/31 of 36/Clause No 20/S.No.49	Height of bushing from gland plate is 827 mm instead of 900mm. Kindly accept.	Need to discuss- Make & model of termination kit compartibel for this height needed to be supplied.
9		Additional Points of 11kV RMU	We understand that HTMU need to be procured from your approved vendor. Therefore you are requested to; 1. Provide the list of approved vendors for HTMU, CT / PT along with the ratio, STC, etc. 2. Inspect the HTMU at the approved vendor's facility.	Refer TS of HTMU/shall share approved make list
			Kindly clarify the scope of Inter-connecting cable & termination kit, between HTMU and RMU.	As we are purchasing all in one features, so HTMU make may be different (as per TP Odisha DISCOM TS), But all connectivity will be in BA Scope
10		33kV RMU Specs/Clause No 4.0/S.No.23 Motorisation	Kindly clarify, that in motorised RMUs, whether both LBS & VCB are motorised or only LBS are motorised.	Both are motorised
11		33kV RMU Specs/Clause No 4.1/S.No.4 & 5	Please accept Shunt trip coil of 24V DC instead of 230V AC.	Both are accepted.
12		33kV RMU Specs/Clause No 5.4.8	The LBS shall have maximum 2NO & 2NC spare contact, instead of 3NO & 3NC. Kindly accept the same.	Noted and accepted
13		33kV RMU Specs/Clause No 5.5.9	The mounting arrangement shall be flexible for up & down only.	Accepted.However ensure cables can be changed easily
14		33kV RMU Specs/Clause No 5.7.3	The Size of copper earth busbar shall be 30X3 sq.mm., inside encloser	As per TS
15		33kV RMU Specs/Clause No 5.11	Kindly clarify the requirement of Flag.	Kindly adhere technical specification
16		Additional Points of 33kV RMU	We understand that HTMU need to be procured from your approved vendor. Therefore you are requested to; 1. Provide the list of approved vendors for HTMU, CT / PT along with the ratio, STC, etc. 2. Inspect the HTMU at the approved vendor's facility.	Refer TS of HTMU/shall share approved make list

			Kindly clarify the scope of Inter-connecting cable & termination kit, between HTMU and RMU.	As we are purchasing all in one features, so HTMU make may be different (as per TP Odisha DISCOM TS), But all connectivity will be in BA Scope
Sl. No.		Tender Reference (Document name/Page no./Clause no./Clause name)	Pre-Bid Query raised by Bidder	DISCOM Response
1		TPU-D-ENG-HV-20054/4 of 36/1/SCOPE	This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply (including unloading at site/store) Query : Unloading is not in our scope. Please confirm.	One time unloading will be in BA Scope
2		TPU-D-ENG-HV-20054/8 of 36/5.2.9/CIRCUIT BREAKER FOR TRANSFORMER / LOCAL FEEDER CONTROL	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. Query : Our RMU is proven design with hexagon bolts on the front cover. Please accept.	TS to be complied
3		TPU-D-ENG-HV-20054/8 of 36/5.2.10/CIRCUIT BREAKER FOR TRANSFORMER / LOCAL FEEDER CONTROL	The default design of cable compartment shall be 1run 3Cx400 sq. mm 11 kV or 1run 3 nos. 1Cx630 sq. mm 11kV UG or 1run 3 nos. 1Cx185 sq. mm 11kV UG, XLPE, armoured. Query : Our RMU is suitable for terminating the cable size upto 1run of 3Cx400sqmm cable. Please accept.	Noted and confirmed
4		TPU-D-ENG-HV-20054/8 of 36/5.2.11/CIRCUIT BREAKER FOR TRANSFORMER / LOCAL FEEDER CONTROL	The circuit breakers, Load break switches and earthing switches shall have pad lock provision & can be locked in the open or closed position by 1 to 3 padlocks 6 to 8mm in diameter. Query : Pad locking provision is available at all the operating shutters/sliders of RMU. However, pad locks are not in our scope of supply.	Kindly adhere technical specification
5		TPU-D-ENG-HV-20054/10 of 36/5.5.12/CIRCUIT BREAKER FOR TRANSFORMER / LOCAL FEEDER CONTROL	Breaker shall have mechanical endurance of at least 10000 (M2) operations. Relevant type test reports to be submitted along with bid. Query : We will provide Breaker with M1 (n=2000) class along with bus side three position disconnecter which is connected in series with the breaker, the same is in line with past supplies to TP utilities across India and as per our type tested design. Please accept.	Kindly adhere to technical specifications
6		TPU-D-ENG-HV-20054/10 of 36/5.5.17/CIRCUIT BREAKER FOR TRANSFORMER / LOCAL FEEDER CONTROL	The CTs of 2.5VA, 5P10 Class shall be employed. CT ratio shall be 60 to 400/1 (Further CT ratio (with at least two primary current rating) to be finalized during detailed engineering). Query : As per previous tender finalization, should we consider the CT ratio as 60 150-300/1A. or we should maintain as per spec i.e. 60-400/1A. Please confirm.	VA burden and Protection class is accepted. CT ratio shall be confirmed by concern TP Odisha DISCOM at the time of release of POI/RO.
7		TPU-D-ENG-HV-20054/10 of 36/5.5.17/CIRCUIT BREAKER FOR TRANSFORMER / LOCAL FEEDER CONTROL	The preferable make of relay are Biddder, Ashida, Schneider, Siemens make self-powered relay. Query : Shall we provide Siemens make 7SR45 Self Powered Protection relay with conformal coated PCBA as per specification requirement. Else we should consider Ashida ADR241S-AM-760-09-01-28-01-00-10 only ? Kindly confirm.	Can be accepted.
8		TPU-D-ENG-HV-20054/10 of 36/5.5.18/CIRCUIT BREAKER FOR TRANSFORMER / LOCAL FEEDER CONTROL	The terminal protectors to be supplied with the 11 KV RMU by the vendor along with the cable termination bolt for termination 185 Sq. mm 11kV 1C cable in breaker & 300 Sq. mm 11kV 3 C for isolator compartment. Query : We are considering the cable size as 1Rx3Cx400sqmm for LBS and VCB feeders in our offer as per clause 5.2.10. Pelase confirm.	Adhere to TS, However Cable sizes to be confirmed by concern TP Odisha DISCOM at the time of release of RO

9		TPU-D-ENG-HV-20054/11 of 36/5.6.11/CIRCUIT BREAKER FOR TRANSFORMER / LOCAL FEEDER CONTROL	The cable cover door shall be pad lockable and shall be Tamper and Arc proof. The circuit breaker and earth switch shall be lockable in the open or closed positions by 1 to 3 padlocks. Query : Cable cover door will be provided with tamper, arc proof, fully interlocked with earth switch and it is bolted type as per our type tested design. But it is not pad lockable. All the operating shutters / sliders of RMU are provided with pad locking provision. But pad locks are not in our scope of supply.	Noted and accepted
10		TPU-D-ENG-HV-20054/11 of 36/5.8/VOLTAGE INDICATOR LAMPS AND PHASE COMPARATORS	These devices shall be following IEC 62271-206:2011 standard. Query : We will provide VDIS (Voltage Detection and Indication Systems) as per IEC 62271-213 which is the latest amendment released for VDI systems.	Noted and accepted
11		TPU-D-ENG-HV-20054/12 of 36/5.9.10/FRONT COVER	The Direction of operation shall be clock wise for any close operation and counter clock wise for any open operation of disconnect /LBS and earth switch. Query : The direction of operation will be as per our standard type tested design. The direction of operation will be clearly indicated on the front facia of RMU through Mimic diagrams.	Noted and accepted and direction to be properly painted(non washable type) on door
12		TPU-D-ENG-HV-20054/12 of 36/5.10/FAULT PASSAGE INDICATORS	Offered FPI shall give Fault Detection status with direction. Query : The Fault Passage Indicator (FPI), which is used in RMU inherently works for fault detection in cables at load current direction, thus provide the fault detection status in forward direction.	Bidirection FPI is required
13		TPU-D-ENG-HV-20054/13 of 36/5.11.A/REMOTE CONTROL OF THE RMU: For non-motorized RMU	For non-motorized RMU Query : Non Motorized RMU is not applicable in this tender. Please confirm.	Confirmed
14		TPU-D-ENG-HV-20054/13 of 36/5.11.B/REMOTE CONTROL OF THE RMU: For Motorized RMU	Shall have option to provide auxiliary PT having 1000VA burden for power supply to the FRTU, relay and DC battery charger. Query : We shall consider Aux. PT, FRTU as per tender document (Annexure-I Price Schedule). Sr. No. 3 -- RMU 11KV 630A V- Single Breaker Module -- <i>This will be a Add-On unit, hence No. Aux. PT and FRTU is applicable.</i> Sr. No. 4 -- RMU 11KV 3WAY 630A LLV WTH HTMU & AUX PT -- <i>FRTU is not applicable.</i> Sr. No. 7 -- RMU 11KV 3WAY 630A LLV(2ISO+1 BKR)+AUXPT - <i>FRTU is not applicable.</i> Sr. No. 9 -- RMU 11KV 4WAY 630A LLV(2ISO+2BKR)+ HTMU -- <i>Aux. PT and FRTU is not applicable.</i> Sr. No. 12 -- RMU 11KV 4WAY 630A LVVV (1I+3B) + FRTU -- <i>Aux. PT is not applicable.</i> Sr. No. 13 -- RMU 11KV 4WAY 630A LLLV WTH HTMU &AUX PT -- <i>FRTU is not applicable.</i> Sr. No. 16 -- RMU11KV 4WAY 630A LVVV(1I+3B)+AUXPT - <i>FRTU is not applicable.</i> Sr. No. 17 -- RMU11KV 4WAY 630A LLVV(2I+2B)+AUXPT - <i>FRTU is not applicable.</i> Sr. No. 18 -- RMU 11KV4WAY 630A LLLV(2I+2B)+HTMU+AUXPT -- <i>FRTU is not applicable</i> Sr. No. 19 -- RMU 11KV 4WAY 2* 630A BKR O/D - <i>FRTU and Aux. PT is not</i>	As per Tendered BOQ item
15		TPU-D-ENG-HV-20054/14 of 36/5.11.8 & 5.11.C.b/REMOTE CONTROL OF THE RMU: For motorized RMU & For Smart RMU	The On/Off Push button of LBS and VCB shall be Illuminated type with inbuilt LED indicating presence of electrical supply. Query : As per our standard design, we will provide TNC/ONC switch (22.5mm) for ON/OFF Electrical operation of LBS and VCB. We shall not provide any LED indication as ON/OFF indication of LBS and VCB is viewable through front mimic diagram.	ON/OFF status should ve viewable

16		TPU-D-ENG-HV-20054/14 of 36 & 15 of 36/5.11.B & 5.11.C.j/REMOTE CONTROL OF THE RMU: For motorized RMU & For smart RMU	Both the LBS should be wired up for auto changeover scheme. And CB to be wired up for Auto-recloser Scheme/feature. Query : Please confirm whether Auto changeover between LBS and Auto Reclosing is the mandatory requirement at TP Odisha DISCOM's. Based on our previous experiences, the same is not mandatory at TP Odisha DISCOM's. Kindly confirm.	Refer TS_FRTU _for auto changeover scheme
17		TPU-D-ENG-HV-20054/14 of 36 & 15 of 36/5.11.B & 5.11.C.h/REMOTE CONTROL OF THE RMU: For motorized RMU & For smart RMU	1 No. Surge Protection Device to be provided for the relay communication ports for protection from external surge. Query : Relay's RS-485 port will be connected in daisy chain and finally it will be connected to RS-485 port of FRTU. Therefore, we will provide 1no. SPD per daisy chain loop / per RMU before connecting it to FRTU.	SPD for serial & ethernet communication to be considered for 2 nos. Ethernet port & 2 nos. Serial ports separately.
18		TPU-D-ENG-HV-20054/14 of 36 & 15 of 36/5.11.B & 5.11.C.h/REMOTE CONTROL OF THE RMU: For motorized RMU & For smart RMU	1 No. Surge Protection Device to be provided for FRTU. Query : Surge Protection Device is required at input power supply to the FRTU or SPD's required for Ethernet port of FRTU. Please confirm.	SPD for serial & ethernet communication to be considered for 2 nos. Ethernet port & 2 nos. Serial ports separately.
19		TPU-D-ENG-HV-20054/14 of 36 & 15 of 36/5.11.B & 5.11.C/REMOTE CONTROL OF THE RMU: For motorized RMU & For smart RMU	Preferred communication protocol for FRTU shall IEC-60870-5-104. Query : Specification provided separately for FRTU and related components where FRTU needs to be complied with multiple communication protocols such as 104, IEC 61850 etc. So we will follow the separately provided FRTU spec for selecting the FRTU. Please confirm.	No deviation accepted. Bidder to adhere to the GTP/Specifications as per the Tender document.
20		TPU-D-ENG-HV-20054/14 of 36 & 15 of 36/5.11.B & 5.11.C/REMOTE CONTROL OF THE RMU: For motorized RMU & For smart RMU	4 Nos. spare relay tripping NO, NC contacts to be provided. Flag Indications on RMU when tripped should be on shunt trip. Query : Available spare contacts in relay will be wired out till terminal block after using in the control circuit and FRTU integration. Flag indicator shall not be provided as the protection relay has the LED indication on its front facia for local trip/fault indication. There should be relay with timer instead of only relay, which is used in the latching circuit. Query : Our LBS control circuit is proven design for multiple decades, hence we shall follow our standard control circuit for LBS.	To be finalized during detail Engineering
21		TPU-D-ENG-HV-20054/16 of 36/5.11.C.2.a/REMOTE CONTROL OF THE RMU: For Smart RMU - Technical details of Auxiliary PT (2 core)	Voltage ratio- 11000/3 240V, 3 240V Query : Please confirm whether we should consider two phase type Aux. PT (11kV/230V) or single phase type Aux. PT (11kV/R3/415V/R3).	As per TS
22		TPU-D-ENG-HV-20054/16 of 36/5.11.C.3/REMOTE CONTROL OF THE RMU: For Smart RMU - FRTU	Preferred make and model for the FRTU (However it will be finalised during detailed engineering) a. Biddder/Hitachi Make FRTU with Model No – RTU540, RTU 530 b. Siemens Make FRTU with Model No – A8021 c. Schneider Make FRTU with Model No – T 300 d. WAGO Make FRTU with Model no - 750-8212 e. For any other OEM – Please provide details during detailed engineering and subject to approval of concern DISCOM. Query : We shall not accept the FRTU make and model finalization during detailed engineering stage as any change will lead to huge price variation. So we will follow the specified model and make in our offer and accordingly we will provide technical compliance against FRTU specification. Also, please confirm if Ashida and Phoenix make FRTU is accepted for this tender.	In addition to the list of make & models, TPCODL had purchased Synergy make FRTU & Ashida make FRTU, these are acceptable. Bidder to adhere to the GTP/Specifications as per the Tender document. TPCODL has no experience of Phoenix FRTU, hence user experience from other Sister Organisation (TPWODL) will be considered during evaluation. Adher to specification, we do not have Ashida experience, but Phoenix is not acceptable as it is PLC

23		TPU-D-ENG-HV-20054/16 of 36/5.11.C.7/REMOTE CONTROL OF THE RMU: For smart RMU	The Aux. PT compartment cover shall have interlock so as to avoid opening when bus is charged for safety, applicable for the FRTU and PT placed having common enclosure. Query : Aux. PT will be housed in top compartment in the metering panel and FRTU/Related components will be housed in the bottom compartment in the metering panel (or FRTU shall be housed separately in a dedicated stand alone FRTU panel), so there will be clear segregation between HT and FRTU compartment. Therefore, FRTU compartment can be opened for testing and maintenance purpose when the bus is charged. For Aux. PT compartment, we will provide a caution sticker on the PT door to avoid unauthorized access and also after opening the PT door, there will be a transparent shroud as well, so there is no chance of accidental access to the PT compartment as there is a PT door + shroud along with caution sticker is being provided at Aux. PT compartment.	The Aux PT Chamber & FRTU Chamber should be different with separate doors for COMBO Type units. The Aux PT should be in the upper side while the FRTU Chamber in the lower side. The design is already being used by leading RMU manufacturers and same is being supplied to TPCODL in last two years. The safety issue will not be there for standalone FRTU, however integrated COMBO unit of RMU+FRTU is being preferred.
24		TPU-D-ENG-HV-20054/16 of 36/5.11.C.8/REMOTE CONTROL OF THE RMU: For smart RMU	Model of Modem for communication of data to be mentioned. Approved make of modem are Biddler Viola & Robustel R2010. Query : As per the previous tender finalization with TP Odisha DISCOM's, Nomus make Modem WIZ NG EL was the approved make and model. Please confirm.	Adher to specification. Nomus make Modem WIZ NG EL is being in use at TPCODL, hence it acceptable.
25		TPU-D-ENG-HV-20054/17 of 36/5.12.6/For All types of RMU	Suitable for cable sizes a. 11kV 3CX630 sq.mm/3CX400sqmm having dia of 100mm in all compartment and b. LBS suitable for 11kV 1CX630 sq.mm cable having diameter of 51mm if applicable as per requirement in tender. Query : We are considering the cable size as 1Rx3CX400sqmm for LBS and VCB feeders in our offer as per clause 5.2.10. Please confirm.	Noted and accepted
26		TPU-D-ENG-HV-20054/19 of 36/5.12.23/For All types of RMU	RMU Cable Boot/ terminal protector to be provided in each compartment for each phase. Confirmation from bidder that same boot was used during type testing of RMU. Query : We are considering higher end cable boots in line with specification i.e. FR grade cable boots, however the same was not used during type testing of RMU as the boots are customer specific applicable for this tender only.	Noted and accepted
27		TPU-D-ENG-HV-20054/19 of 36/5.12.27/For All types of RMU	In each cable compartment each bushing shall have temperature sensors. The temperature data should be shown on one common display unit and shall be communicated to SCADA in motorised and Smart RMU. Query : We will not be considering temperature sensors and associated monitoring display in our offer. Please confirm.	Kindly adhere to technical specifications
28		TPU-D-ENG-HV-20054/19 of 36/5.12.29/For All types of RMU	The terminal bolt shall be M16 and of stainless steel. Query : We shall offer Alu-Zinc Hardware (Bushing bolt M16X50 DIN EN 12329Alu-Zinc). Please accept.	Noted and confirmed
29		TPU-D-ENG-HV-20054/19 of 36/5.12.30/For All types of RMU	Battery Capacity and Preferable battery make 26Ah at least for RMU part Only/ Battery capacity and type should be 2x 12V Maintenance free Preferable Make : Exide, Amararaja, HBL etc. Query : For RMU with FRTU, we shall offer 42AH Battery. For RMU without FRTU, we shall offer 26AH Battery. The same is inline with previous experiences at TP Odisha DISCOM's.	Noted and confirmed
30		TPU-D-ENG-HV-20054/19 of 36/5.12.31 & 5.12.32/For All types of RMU	SMPS make and Rating - Gogate /ALAN make(Preferable) , Output- 24V,10A Battery Charger Isolation voltage and auto boost mode - In the range of 4000Volts (Preferable make : Adel syst Query : For RMU with FRTU, we shall provide the battery charger as per battery charger specification given in the FRTU specification. For RMU without FRTU, we shall provide standard battery charger (Make of Gogate/Alan) with surge protection of 3kV.	Noted and confirmed

31		TPU-D-ENG-HV-20054/26 of 36/5.18/SPARES, ACCESSORIES & SPECIAL TOOLS/ GAUGES	Bidder shall provide following spares as commissioning spares along with RMU. Query : Please confirm do we need include the prices of spares as per this clause in the bid or spares to be quoted separately for future ordering whenever required.	Spares shall be supplied on Free of Cost Basis along with RMUs. Please refer revised Price bid attached with Corrigendum for better clarity.
32		TPU-D-ENG-HV-20054/29 of 36/5.20/GENERAL TECHNICAL PARTICULARS FOR RMU	Enclosure - The RMU metal parts shall be greater than 2mm thickness high tensile steel/CRCA. Query : As per clause 5.1.1 (Page no. 7 of 36), we shall offer RMU Enclosure with 2mm thick CRCA.	Noted and confirmed
33		TPU-D-ENG-HV-20054/30 of 36/5.39/GENERAL TECHNICAL PARTICULARS FOR RMU	Ashida make, 2415-AM-760-09-01-28-01-00-10 Query : Is it mandatory to consider this model in our offer ? Please confirm.	Suggest any alternate make and model , Should match all the criteria with this relay ,or any better relay make and model can be considered
34		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	FRTU make and Model, DI/DO/AI counts Query : We shall offer FRTU make and Model as Ashida (AFRTU2) / Wago (750-8212) / Hitachi (RTU 530) / Siemens (A-8021). 64DI / 16DO / 8DI / 2 Ethernet Port / 2 RS485 ports. Please confirm.	Please refer the point no: 1.34 (k) (Page no 15) of the Tender Document for DI/DO/AI count.
35		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	Ethernet switch make and Model Query : We shall consider Moxa make Ethernet switch as per below details based on the previous experience. Please confirm. MOXA MAKE, EDS-510E-3GTXSFP-T, MANAGED GIGABIT ETHERNET SWITCH WITH 7NOS. 10/100BaseT(X) ports, 3NOS. 10/100/1000BaseT(X) COMBO PORTS, WITH 2nos. SFB MODULE	Noted The offered Product should meet the GTP with product support documents
36		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	Wireless router make and model Query : We shall consider Nomus make wireless router as per below details based on the previous experience. Please confirm. NOMUS, WIZ NG EL (01 WAN 04 LAN) ROUTER (DUAL SIM ETHERNET ROUTER WITH 4G/3G/2G WIRELESS) WITH 2 UNITS OF 7db/5m ANTENNA, LAN CABLE - 1m, CONNECTOR FOR 24VDC AUX., DIN RAIL MOUNTING	Noted The offered Product should meet the GTP with product support documents Nomus make Modem WIZ NG EL is being in use at TPCODL, hence it acceptable.
37		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	Battery Charger make and model Query : We shall consider Gogate make Battery Charger as per below details based on the previous experience. Please confirm. BATTERY CHARGER, MBCBT-2410, 230VAC-24VDC, 10A, WITH 2P 10A MCB - 1no., 1P 10A MCB-1no., 1P 6A MCB-1no.	Noted The offered Product should meet the GTP with product support documents
38		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	MFM make and model Query : We shall consider Secure make MFM as per below details based on the previous experience. Please confirm. SECURE ELITE-441, MFM, 24VDC AUXILIARY SUPPLY, WITH RS-485 PORT for Bus Voltage monitoring.	Noted The offered Product should meet the GTP with product support documents
39		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	Dummy Breaker Latch Relay make and model Query : We shall consider Dummy breaker latch relay of Schneir make as per below details based on the previous experience. Please confirm. SCHNEIDER,A9C30215,24VDC,16A,1NO+1NC,LATCH RELAY	Noted
40		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	DI/DO/AI/RS485 terminal block Query : We shall provide terminal blocks as shown below based on the previous experience. For DI/AI/RS485 signals - We will provide knife type disconnecting terminal blocks. (Equivalent to connectwell CKT4U/S) For DO - We will provide Sliding link type disconnecting terminal blocks (Equivalent to connectwell CBDT4UNS)	Noted & Accepted. For DI/AI/RS485 signals - knife type disconnecting terminal blocks. For DO/AC/DC - Sliding link type disconnecting terminal blocks
41		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	CMR and IPR Query : As per past experience with TP Odisha, We shall provide Omron make MY2N-D2-GS DC24 CMR for ON/OFF status of LBS, VCB, ES, VCB Disconnecter to connect with the FRTU. Remaining all the DI signals will be directly wired out to FRTU without any CMR. For DO's from FRTU, IPR (Omron make MY2N-D2-GS DC24) will be provided for each DO.	Noted The offered Product should meet the GTP with product support documents.

42		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	Battery Query : Battery shall be provided with 42AH capacity based on past experience with TP Odisha.	Noted and accepted
43		Specification of FRTU (Feeder Remote Terminal Unit) for RMU	Harting Plug Query : Harting plugs will be provided for DI/DO signals.	Noted and accepted
44		Specification of FRTU (Feeder Remote Terminal Unit) for RMU, Clause 1.46, Page no. 27 of 112	Networking Accessories (Patch Panel, I/O Box , Ethernet Patch cords) Query : Our scope is limited to providing the following components in the RMU for FRTU systems. 1. FRTU with approved make and model 2. Wireless Router 3. Ethernet switch with 6 Copper Ports and 2 FO ports. 4. Interconnection between FRTU, Router and Ethernet Switch. Not in our scope :- Providing any patch panel, IO box, protocol convertor, OFC cable etc.	Noted and accepted
45		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 1 -- RMU 11KV 3WAY 630A LLV WTH FRTU & AUX PT Query : We shall offer RMU with 2 LBS and 1 VCB with Aux. PT and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel).	Noted , However it will finalised during detailed engineering
46		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 2 -- RMU 11KV 630A V-Single Breaker+ FRTU+ AUXPT Query : We shall offer RMU with 1 Direct Cable Feeder and 1 VCB with Aux. PT and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel).	Noted , However it will finalised during detailed engineering
47		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 3 -- RMU 11KV 630A V- Single Breaker Module Query : We shall offer RMU with 1 Direct Cable Feeder and 1 VCB along with Half Dummy box for housing the battery charger and battery. 230VAC External supply will be in customer scope.	Noted and accepted
48		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 4 -- RMU 11KV 3WAY 630A LLV WTH HTMU & AUX PT Query : We shall offer RMU with 2 LBS and 1 VCB with Aux. PT and HTMU without FRTU. HTMU will be procured from TP Odisha approved vendor (Ex. Adhunik Yantra) and will be dispatched directly to site without taking HTMU to our works. HTMU and Breaker cubicle needs to be coupled at site by using cable, the cable connection works and cable supply are not in our scope.	For HTMU : Please refer TS of HTMU We are going to purchase integrated feature, So Connectivity and Integration will be in Bidder's scope
49		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 5 -- RMU 11KV 3WAY 630A LLV+HTMU+FRTU+ AUXPT Query : We shall offer RMU with 2 LBS and 1 VCB with Aux. PT, HTMU and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel). HTMU will be procured from TP Odisha approved vendor (Ex. Adhunik Yantra) and will be dispatched directly to site without taking HTMU to our works. HTMU and Breaker cubicle needs to be coupled at site by using cable, the cable connection works and cable supply are not in our scope.	For HTMU : Please refer TS of HTMU We are going to purchase integrated feature, So Connectivity and Integration will be in Bidder's scope
50		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 6 -- RMU 11KV 3WAY 630A LVV(1I+2B)+AUXPT+FRTU Query : We shall offer RMU with 1 LBS and 2 VCB with Aux. PT and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel).	Noted , However it will finalised during detailed engineering
51		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 7 -- RMU 11KV 3WAY 630A LLV(2ISO+1 BKR)+AUXPT Query : We shall offer RMU with 2 LBS and 1 VCB with Aux. PT, without FRTU, without HTMU	Noted ,As per tender BOQ item

52		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 8 -- RMU 11kV 3 Way LLL (3 LSO)- RMU+FRTU+AUX PT Query : We shall offer RMU with 3 LBS with Aux. PT and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel).	Noted , However it will finalised during detailed engineering
53		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 9 -- RMU 11KV 4WAY 630A LLVV(2ISO+2BKR)+ HTMU Query : We shall offer RMU with 2 LBS and 2 VCB with HTMU without FRTU and without Aux. PT. HTMU will be procured from TP Odisha approved vendor (Ex. Adhunik Yantra) and will be dispatched directly to site without taking HTMU to our works. HTMU and Breaker cubicle needs to be coupled at site by using cable, the cable connection works and cable supply are not in our scope. 230VAC External supply will be in customer scope.	For HTMU : Please refer TS of HTMU We are going to purchase integrated feature, So Connectivity and Integration will be in Bidder's scope
54		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 10 -- RMU 11KV 4WAY 630A LLLV+HTMU+FRTU+AUXPT Query : We shall offer RMU with 3 LBS and 1 VCB with Aux. PT, HTMU and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel). HTMU will be procured from TP Odisha approved vendor (Ex. Adhunik Yantra) and will be dispatched directly to site without taking HTMU to our works. HTMU and Breaker cubicle needs to be coupled at site by using cable, the cable connection works and cable supply are not in our scope.	For HTMU : Please refer TS of HTMU We are going to purchase integrated feature, So Connectivity and Integration will be in Bidder's scope
55		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 11 -- RMU 11KV 4WAY 630A LLVV+HTMU+FRTU+AUXPT Query : We shall offer RMU with 2 LBS and 2 VCB with Aux. PT, HTMU and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel). HTMU will be procured from TP Odisha approved vendor (Ex. Adhunik Yantra) and will be dispatched directly to site without taking HTMU to our works. HTMU and Breaker cubicle needs to be coupled at site by using cable, the cable connection works and cable supply are not in our scope.	For HTMU : Please refer TS of HTMU We are going to purchase integrated feature, So Connectivity and Integration will be in Bidder's scope
56		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 12 -- RMU 11KV 4WAY 630A LVVV (1I+3B) + FRTU Query : We shall offer RMU with 1 LBS and 3 VCB with FRTU mounted in stand alone FRTU panel attached to the RMU, without Aux. PT, 230VAX External supply is in customer scope.	Noted
57		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 13 -- RMU 11KV 4WAY 630A LLLV WTH HTMU & AUX PT Query : We shall offer RMU with 3 LBS and 1 VCB with Aux. PT and HTMU without FRTU. HTMU will be procured from TP Odisha approved vendor (Ex. Adhunik Yantra) and will be dispatched directly to site without taking HTMU to our works. HTMU and Breaker cubicle needs to be coupled at site by using cable, the cable connection works and cable supply are not in our scope.	Ensure Typetested panel for HTMU Unit as per TS to be supplied. Scope for Cable laying is not in Bidder's scope.
58		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 14 -- RMU 11KV 4WAY 630A LLVV WTH FRTU & AUXPT Query : We shall offer RMU with 2 LBS and 2 VCB with Aux. PT and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel).	Noted , However it will finalised during detailed engineering
59		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 15 -- RMU11KV 4WAY 630A LVVV(1I+3B)+FRTU+AUXPT Query : We shall offer RMU with 1 LBS and 3 VCB with Aux. PT and FRTU mounted in Metering panel (or) stand alone FRTU panel attached to the RMU (Incase FRTU and related components is not feasible to accomodate in Metering panel).	Noted , However it will finalised during detailed engineering
60		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 16 -- RMU11KV 4WAY 630A LVVV(1I+3B)+AUXPT Query : We shall offer RMU with 1 LBS and 3 VCB with Aux. PT, without FRTU, without HTMU	As per Tendered BOQ item

61		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 17 -- RMU11KV 4WAY 630A LLVV(2I+2B)+AUXPT Query : We shall offer RMU with 2 LBS and 2 VCB with Aux. PT, without FRTU, without HTMU	As per Tendered BOQ item
62		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)	Sr. No. 18 -- RMU 11KV4WAY 630A LLLV(2I+2B)+HTMU+AUXPT Query : We shall offer RMU with 3 LBS and 1 VCB with Aux. PT and HTMU without FRTU. HTMU will be procured from TP Odisha approved vendor (Ex. Adhunik Yantra) and will be dispatched directly to site without taking HTMU to our works. HTMU and Breaker cubicle needs to be coupled at site by using cable, the cable connection works and cable supply are not in our scope. Sr. No. 19 -- RMU 11KV 4WAY 2* 630A BKR O/D Query : We shall offer RMU with 2 LBS and 2 VCB along with Half Dummy box for housing the battery charger and battery. 230VAC External supply will be in customer scope.	For HTMU : Please refer TS of HTMU We are going to purchase integrated feature, So Connectivity and Integration will be in Bidder's scope
63		ANNEXURE-I: Price Schedule, Lot-1 (Supply of 11 kV RMU)		Accepted.However it will finalised during detailed engineering