

CENTRALIZED CONTRACTS GROUP**NIT No.: TPCODL / CCG / 2025-26 / 1000003846****Corrigendum- II****NIT No.: TPCODL / CCG / 2025-26 / 1000003846****Rate Contract - Supply of Power Transformer for Tata Power Odisha DISCOMs****Dated 09th July 2025****Following changes in tender document is made;****1.1 Scope of work (Page No. 4)**

Bids are invited from interested Bidders to award Rate Contract (RC) for Supply of Power Transformer for Tata Power Odisha DISCOMs as mentioned below:

Sl. No.	Item Description	TPCODL	TPNODL	TPWODL	Grand Total
1	Power Transformer 5 MVA 33/11KV	0	0	2	2
2	Power Transformer 8 MVA 33/11KV	0	6	8	14
3	Power Transformer 12.5/16MVA 33/11KV	10	2	4	16
4	Power Transformer 20/25 MVA 33/11kV	9	1	0	10

Pre-bid response & Annexure-I as attached below;

All other terms and conditions of the above tender shall remain unaltered.

Yours faithfully,**-sd-****HEAD – CCG & Contracts (TPCODL)**

CENTRALIZED CONTRACTS GROUP**NIT No.: TPCODL / CCG / 2025-26 / 1000003846****ANNEXURE-I : Price Schedule**

Sl. No.	Item Description	UoM	Qty	Unit Ex-Work Price (Rs. / Unit)	Supervision Charges (Avg-5Days / PT) (Rs. / Unit)	GST per Unit (Rs. / Unit)	All Inclusive Unit Rate (Rs.)	Total All Inclusive Value (Rs.)
			(A)	(B)	(C)	(D)	(E=B+C+D)	(F=A x E)
1	Power Transformer 5 MVA 33/11KV	EA	2					
2	Power Transformer 8 MVA 33/11KV	EA	14					
3	Power Transformer 12.5 / 16MVA 33/11KV	EA	16					
4	Power Transformer 20 / 25 MVA 33/11kV	EA	10					

NOTE:

- Prices shall remain variable as per IEEMA. 20th June 2025 is the Base Date for PV Calculation (IEEMA Circular- May 2025).
- The bids will be evaluated commercially on **the Line item wise Lowest Cost** basis.
- The prices mentioned above shall be on FOR basis for all the TPNODL, TPCODL, TPSODL & TPWODL locations.
- Issuance of Release Orders (RO) shall be done by respective DISCOMs as per their requirement.
- The material shall be delivered as per the location captured in the Release Order.
- The bidders are advised to quote prices strictly in the above format. Failing to do so, bids are liable for rejection.
- The bidder must fill each and every column of the above format. ***Mentioning “extra/inclusive”/other conditions in any of the column may lead for rejection of the price bid.***
- No cutting/ overwriting in the prices is permissible.
- The quantity mentioned above are for evaluation purpose only and may vary as per actual site requirement.

Format for Pre-Bid Queries																						
Tender No: TPCODL/CCG/2025-26/1000003846																						
Tender Description: Rate Contract - Supply of Power Transformer for Tata Power Odisha DISCOMs																						
Sr. No.	Detailed Reference to Tata Power Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification																			
1	2	3	4	Pre-Bid Response																		
For of 5MVA and 8MVA Power Transformer																						
1	Clause.No:4.1(40(b))	Clause.No:4.40.b b) Tap range of OLTC as + 4.686% to -20.28 % in steps of 1.56% d) Principal tap poistiin - 5th	b) The given tap range & steps are not matching, may be typographical error the OLTC range shall be 4.68% to -20.28 % in steps of 1.56% (as per earlier executed orders) d) the principal tap position will be on 4th instead of 5th position	TBD During Detailed engineering(DISCOM Specific)																		
2	Clause.No:4.4(VII)&5.15(XI)((XIII)	Clause.No:4.4(VII) Transformer shall be compatible for Operation along with Tap Changer Control panel or Transformer Monitoring Unit (TMU). Supply of TMU is not in scope of Bidder. Clause.No:5.15(XI) Automatic / Parallel Operation with OLTC OLTC shall be able to do automatic / parallel operations through Transformer Monitoring Unit(TMU). Clause.No:5.15(XIII) Tap Changer Control panel or Transformer Monitoring Unit (TMU):This equipment is not required to be supplied by the bidder of the transformer.	Against this we are providing the OLTC with RTCC and AVR sutiable to SCADA compatible.TMU is not in SSE scope of Supply. Kindly confirm?	RTCC /AVR is not required.Transformer shall be compatible for Operation with Tap Changer Control panel or Transformer Monitoring Unit (TMU). Supply of TMU is not in scope of Bidder.																		
3	Clause.No: 5.2(xiii)	As per Clause No:5.2(xiii). a) The grounding lead from the core shall be brought out of the tank through a 11 kV class bushing and grounded externally.	We wish to bring to your kind notice that, the grounding shall be with 1.1 KV class bushing. Kindly confirm?	Noted and accepted																		
4	Clause.No:5.26	5.26 MAKE OF MAJOR COMPONENTS & RAW MATERIALS a) Copper: M/S Sterlite, M/S Hindustan Copper, M/S Hindalco, M/s NALCO etc. b) Core: M/S AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel. c) Insulation paper and Pressboards: ITC paper, ABB, Raman Boards- Mysore, Senapathy Whiteley – Bangalore d) Transformer Oil (Mineral oil): Savita, Apar, Gandhar, Columbia, IOCL e) Gaskets & Corks: Nu Cork, Anchor Corks f) Steel for Tank: M/s, TATA Steel, M/s SAIL, M/s. JSW Steel, M/s. IISCO, M/s. RINL/Vizag Steel, M/s. Jindal Steel, g) Dehydrating Breather: Yogya, Anushree, Electrical engineers h) Bucholz, PRD, OTI , WTI, and other devices Reputed make to be approved by TATA POWER DISCOM during detailed engineering	We wish to bring to your kind notice that,kindly add the below mentioned vendors also b) Core : 1.Baoshan Iron & Steel Co, China 2.NOVOLPESTSK STEEL (NLMK) RUSSIA 4.VIZ STEEL LTD, RUSSIA d) Transformer Oil : Apar, Savita, Gandhar & Raj petro Kindly Confirm.	This shall be as per tender specifications.																		
5	As per clause: 10	As per Clause.No:10: Inspection in Store: b) In case the transformers proposed for supply against the order are not exactly as per the tested design, the Bidder shall be required to carry out the short circuit test and impulse voltage withstand test at its own cost in the presence of the representative of the TATA POWER DISCOM	Against this clause we will submit the type test reports of similar or higher rating, if type test reports in line with the specification are required, same will be provided before commencement of supply.	Type test of Higher or,same rating is accepted ,In case Bidder is submitting Higher rating Type Test then design similarity proof has to be submitted																		
6	As per clause:5.20.	As Per Clause No.5.20.WTI: In one winding of each phase & WTI For LV sid <table><tr><th>Core</th><th>Purpose</th><th>CTR for 5 MVA & 8 MVA</th><th>Class</th><th>Burden</th><th>Knee Point Volt</th><th>Imag at V_k/2</th><th>ISF</th><th>Rct</th></tr><tr><td>I</td><td>WTI</td><td>282/1A (5 MVA) 420/1A (8MVA)</td><td>0.5</td><td>30 VA</td><td>-</td><td>-</td><td><10</td><td>-</td></tr></table>	Core	Purpose	CTR for 5 MVA & 8 MVA	Class	Burden	Knee Point Volt	Imag at V _k /2	ISF	Rct	I	WTI	282/1A (5 MVA) 420/1A (8MVA)	0.5	30 VA	-	-	<10	-	Against this we will provide WTI in "W" phase of LV winding in transformer. Since these CTS are use for measuring purpose and same will be located near to temperature devices hence, The current of CT as per the given table however, class of CT will be 3 and Burden of CT will be 10VA. Kindly Confirm.	Noted and accepted
Core	Purpose	CTR for 5 MVA & 8 MVA	Class	Burden	Knee Point Volt	Imag at V _k /2	ISF	Rct														
I	WTI	282/1A (5 MVA) 420/1A (8MVA)	0.5	30 VA	-	-	<10	-														

Sr. No.	Detailed Reference to Tata Power Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	
7	Clause No.5.20.	As per Clause No.5.20. NOTE: I. Equipment for remote winding and oil temperature Indicators including these to be installed in the TATA POWER DISCOM control room shall be provided. Pocket with heater coil and CT for RTD for winding hot spots shall be provided. II. For purpose of remote recording and data acquisition system, Top oil temperature detector along with suitable transducer and other necessary devices to provide two sets of 4-20 mA signals with PT-100 type of sensors.	Against this we will provide OTI & WTI with inbuilt RTD & PT-100 sensors. We confirm that ready availability two sets of 4-20mA in our Marshalling box. Kindly Confirm.	Noted and accepted and in marshalling box with CCU in all WTI & OTI along with digital display for both indications to be provided.,However will be decided during detailed engineering.
8	Clause No.5.23.	As Per Clause No.5.23. Marshalling Box: II. Two sets of independent, potential free contacts shall be provided for various alarms/trips as detailed below. The auxiliary voltage for alarm/ trip circuit shall be station controlled DC for 33/11kV Transformer). For PTR # Potential free contacts is required for a. Buchholz alarm b. OTI alarm c. WTI alarm (LV side WTI CT) d. MOG (main) alarm e. Buchholz trip f. OTI trip g. WTI trip (LV based on WTI CT) h. PRV trip i. MOG (OLTC) Alarm j. OSR trip k. AC supply fail l. Motor Auto Trip m. Air-cell leakage detection	Against this except MOG we shall provide only 1No contact only due to no availability of 2No contacts for devices. Kindly Confirm.	This shall be as per Tender specifications
9	As per clause:4	As Per Clause No.4.19. General Technical parameters: Maximum Flux Density - 1.6 Tesla	We wish to bring to your kind notice that, all other boards of tata power i.e TPSODL,TPNODL&TPWODL are following the flux density in any part of the cores and yoke at normal voltage and frequency shall not be more than 1.69 Tesla and flux density at 112.5% of combined voltage and frequency variation condition should be 1.9 Tesla.	This shall be as per Tender specifications i.e maximum flux density is 1.6 Tesla at normal voltage & 50 Hz frequency.
10	As per clause:4,5,2	As Per Clause No.4.25. General Technical parameters: Core Material - CRGO Silicon Steel, M3, 23HP85D(0.23mm) or better & As per Clause No.5.2.CORE: II. The grade of core shall be M3, 23HP85D (0.23mm) or better	Against this, we shall provide the Core Grade - M3 or better by meeting the no load loss required. Kindly confirm.	This shall be as per tender specification
11	As per clause:5.8	As per Clause No.5.8 Option 2 : (33KV Outdoor Switchyard and 11KV indoor AIS) C. Frame for cable mountingwith HDPE cleats.	We wish to bring to your kind notice that, against this Frame for cable mounting with HDPE cleats are not in bidder scope of supply. Kindly Confirm.	Not in Bidder's scope
12	As per clause:5.8(XI)	As per Clause No.5.8(XI): Termination Arrangement on 11KV and 33KV Side Option 1: (33KV Indoor AIS/GIS and 11KV indoor AIS) Option 2 : (33KV Outdoor Switchyard and 11KV indoor AIS)	We wish to bring to your kind notice that, Against this kindly confirm the Termination arrangement i.e with Option -1 or option-2.	This shall be done during detailed engineering.
13	As per clause:5.13	As per Clause No.5.13. Oil Preserving Equipment: iv. Prismatic oil level indicators with red colour float shall be provided on main tank and OLTC tank conservator.	We wish to bring to your kind notice that, we have observed that oil leaks due to using prismatic oil level indicators. So, against this we will provide plain oil level indicator with the aluminium support. Kindly Confirm.	This shall be as per tender specifications and bidder to ensure that there is no oil leakage.
14	As per clause:5.13	As per Clause No.5.13. Oil Preserving Equipment: v. Separate conservator tank shall be provided for OLTC.	We wish to bring to your kind notice that, against this we will provide a separate conservator for OLTC in the same compartment along with the main tank conservator. Kindly Confirm.	This shall be as per tender specifications
15	As per clause:5.22	As per Clause No.5.22. MOG: SL.No.1. Mounting Pad Diameter - 150mm	We wish to bring to your kind notice that, we will provide the 150 mm diameter MOG for Main tank conservator.And since the OLTC conservator is small, so we are providing 100mm diameter MOG for OLTC conservator. Kindly confirm.	Noted and accepted

Sr. No.	Detailed Reference to Tata Power Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	
16	As per clause:5.23	As per Clause No.5.23. Marhalling Box. Sl.No.14. Auto manual selector switch - Potential free contact in marhalling box.	We wish to bring to your kind notice that, the operation of OLTC to be done in SCADA only. Hence, auto manual selector switch need to installed in SCADA only. So, the potential free contact to be available there only. Kindly Confirm.	This shall be as per tender specifications
17	As per clause:7.2	As per Clause No.7.2. TYPE TEST: 10. Test to verify IP55 of Marhalling and cable boxes(if applicable)	We wish to bring to your kind notice that, against this cable boxes are not applicable. Hence the Marhalling box is complied to IP 55 only. So, there is no need to test. Kindly Confirm.	IP55 test report of marhalling box to be submitted in bid documents
18	As per clause:7.2	As per Clause No.7.2. TYPE TEST: 7. Temperature rise for determing the maximum temperature rise after continuous full load run.	We wish to bring to your kind notice that, we will conduct temperature rise test in our NABL accredited laboratory. Kindly Confirm.	This shall be as per tender documents
19	As per clause:7.2	As per Clause No.7.2. TYPE TEST: 8. Tests on On-load tap changer.	We wish to bring to your kind notice that, we will submit test reports from OEM. Kindly Confirm.	OEM Type Test report is accepted .However Operation of OLTC on load will have to be performed during final inspection at Transformer Manufacturers Premises
20	As per clause:5.0	Clause.No:5 GENERALCONSTRUCTION:(III) All fasteners of M10 and below size should be of stainless steel. All fasteners of M12 and above size should be hot dip galvanized. To achieve a good quality corrosion free painting, bidder should provide epoxy plus polyurethane paint with minimum paint thickness of 120 microns.	Since transformer having requirement of Nut bolt on multiple location and we have facing the issue by using SS nut bolt in past. Its thread are breaking during service condition. Hence we have change to hot-dip galvanised type Nut bolt. Which is widely used across transformer industries. We request you to please accept the same.	Shall be as per Tender documents
21	As per clause:5.21	As per Clause No.5.21.VALVE-II Each valve shall be provided with an indicator to show the open and closed positions and shall beprovided with facility for padlocking in either open or closed position. All screwed valves shall befurnished with pipe plugs for protection. Padlocks with duplicate keys shall be supplied along withthevalves.	Please be noted practically it is not possible to keep the locks in valve due to non-availability of suitable locks for valve. However, we can provide the lead seals and suitable packing for the same.	This shall be as per tendered specifications.we can exclude butterfly valves but Gated valves shall be having locking facility,which is mandatory requirement.
22	As per clause:5.20.	As per Clause No.20.WTI-Note:III Tap changer indicator of OLTC along with suitable transducer and other necessary devices to provide two sets of 4-20mA signals along with one set of 1-16 K resistance output shall be provided.	1-16K resistance output same has to be connected to transducer which is available in RTCC panel or protection panel. However as per tender specification RTCC panel is not in our scope of supply. Hence same is not in our scope of work.	This shall be as per Tender specifications.However RTCC is not Required .
23	As per clause:5.15	As per Calsue No.5.15.ONLOADTAPCHANGER-VII The OLTC motor shall be provided with 415 V auto changeover facilities.Tap positionindication along with the various alarms of tap changer shall be indicated in the marhaling box.	please note that the supply arrangement has to be made in the RTCC panel. However, the panel is not supplied by us hence 415V auto changeover facilities not in our scope of work.	This shall be as per Tender specifications.However RTCC is not Required .
24	As per clause no. 5.4(ii)	Inter layer insulation both for HV and LV windings shall be DPC and compressed pressboard of reputed make (subject to approval of TATA POWER DISCOM).	In case of the windng construction considered for the offered trasnformers, inter-layer insulation is not required (as per type tested design)	Please go through the TS Requirement for proper query response
25	As per clause no. 12: . PACKING AND TRANSPORT:	9. A Shock recorder also shall be provided during transport. Data of the same shall be shared during execution.	For these smaller rating power transformers shock/impact recorders are not required and same are not provided. =\	This shall be as per Tender Specifications
26	GTP-10:	a)Partial discharge level :	a) Partial discharge test is not applicable below 66kV voltage class transformer. Kindly confirm	Noted and accepted
27	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE QR code shall be provided on name plate. QR code shall content the name plate details, approved GTP/Drawing and a video of overall functionality of transformer & associate components	In line with the earlier executed orders, QR plate shall be provided separately which shall contains OEM name, Rating, Voltage Class, Losses, Conductor material etc.	Noted and accepted
28	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE "Sign writing shall also be provided as per the format attached with this specification	Request to kindly provided the sign writing document for our review and re confirmation.	This shall be finalised during detailed engineering
29	As per clause no. 6(ff)	6. NAME PLATE AND MARKING RATING PLATE ff) Tan delta value of insulating oil and Kraft paper of transformer.	Kindly note that, in line with the earlier executed orders, Tan-delta value of insulating oil & Kraft paper to be considered from respective oil supplier's datasheets/test reports and these values can not provided on rating plates.	Noted. But these reports to be submitted during detailed engineering
30	As per clause no. 5.17	5. GENERAL CONSTRUCTION 5.17 PRESSURE RELEASE VALVE 15.Marking: The unit shall be appropriately marked as TATA POWER DISCOM and with the name of the vendor, Manufacturer type/ serial no. and year of manufacturing at suitable location.	Fittings provided to the transformer as per the respective supplier's standard / catalogue products and in line with our earlier supplies, any of the components shall not be having respective TPCODL /TPSODL/TPNODL/TPWODL marking on them. Please confirm	Noted and accepted

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31	As per clause no. 5.22	5. GENERAL CONSTRUCTION 5.22 MOG 17. Marking: The unit shall be appropriately marked as "TATA POWER DISCOM" and with the name of the vendor, Manufacturer type / serial no. and year of manufacturing at suitable location.		Noted and accepted
32	As per clause no. 5.8	5. GENERAL CONSTRUCTION 5.8 BUSHINGS: I. The insulation class of the high voltage neutral bushing shall be properly co-ordinate with the insulation class of the neutral of the high voltage winding	As the offered transformer is with vector group of Dyn11. Only LV side neutral is provided. Please confirm.	Noted and accepted
FOR 33/11 KV -12.5/16MVA Power Transformers				
33	Clause No.4.0(4.1)	Sr.No.12. Percentage Impedance voltage on normal tap at base MVA(Tolerance shall be as per IS:2026 Part-1, Clause 9, Table No.1) - 10% or 12% Note: Percentage Impedance will specified during Tender/Detailed Engineering	Against these, we presume that 10% is for 12.5MVA and 12% is for 16MVA Base. But, as the rating of transformer is 12.5/16MVA if the impedance at 12.5MVA is 10% then the impedance at 16MVA will be 12.8%. Kindly Confirm.	Percentage impedance at 12.5 MVA shall be 10%. Bidder to submit calculations of percentage impedance at 12.5 & 16 MVA during detailed engineering .however NLL and FLL to be maintained as per TS
34	Clause No.4.0(4.1)	Sr.NO.36. On Load Tap changer(OLTC) on HV side b) Range: Option-01 # (+4.686%) to (-20.28%) in steps of 1.56%. Option-02 # (+5%) to (-15%) in steps of 1.25%. Option-03 # (+10%) to (-10%) in steps of 1.25%. d) Principle Tap position: Principle Tap: Option 01 # 5th Option 02 # 9th	Against these, we are already supplying transformer for Tata Power orissa divisions with Option-01 # (+4.686%) to (-20.28%) in steps of 1.56% which is type tested also. If any change in tap range then we presume that, there is no need to conduct again the type tests after receiving the order against this tender. d)Principle Tap position: for Option 01 the principle tap will be at 4th position and for Option 02 the principle will be at 5th position. Kindly Confirm.	To be decided during detailed engineering
35	Clause No.4.0(4.1)	Sr.No.38. Transformer Dimensions(Limiting) - 12.5/16MVA(ONAN/ONAF)(33/11KV) : 5.3M X 4.7M	Against these, we will provide 10%(+/- Tol) on transformer dimensions Kindly confoirm.	As per TS
36	Clause No.4.0(4.3)	Optional for NCT(To be finalized during Tender evaluation) 4.3. Neutral CT(Bushing CT): Supplier to provide suitably sized 2 core CT with PS class & 5P20. CTR % other parameters shall be decide during detailed engineering.	Against these, Kindly confirm NCT is required or Optional only.	NCT required,NCT ratio shall be decided during detailed engineering NCT should be removable without opening the top cover. Accuracy Class:PS , Knee Point Voltage>500V, Imag at Vk/s <100mA, ISF <=5, Rct<6 Ohm
37	Clause No.5.2	II. The Grade of core shall be M3 or 23PH85D(0.23MM).	Against these, we will provide core grade as per our design prattice by meeting the No Load Losses. Kindly Confirm.	This shall be as per Tender Specifications
38	Clause No.5.3	XI.The change in impedance values between the winding (HV/LV) shall not exceed ±10% of nominal impedance value as specified at all taps on HV/LV side.	Against this we will proceed tolerance on Impedance as per Clause No 4.1(Sr.No.12.) As per IS:2026 Part-1).Kindly confirm?	This shall be as per Tender Specifications
39	Clause No.5.8.	Primary Side Termination (66kV & 33kV) Option-01 (For Outdoor Switchgear) Option-02 (For Indoor Switchgear - with Cable box) Secondary Side Termination 11KV Option-01 (For Outdoor Switchgear) Option-02 (For Indoor Switchgear - with Cable box)	Against these, Kindly confirm the both Primary & Secondary side termination.	This shall be finalised during detailed engineering.
40	Clause No.5.11.	Oil: Type: Type-II Uninhibited. Ester Oil:(If requirement is specifically mentioned in Tender)	Against these, Kindly confirm the Oil is Uninhibited or Ester oil.	Type -II Unihibitted as per IS 335 Latest Amnd.
41	Clause No.12.	V. A shock recorder also shall be provided during transport. Data of the same shall be shared during execution.	Generally for this capacity of transformers shock recorders are not required for transport. Kindly confirm.	This shall be as per Tender Specifications

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42	Clause No.7.2.	10. Test to verify IP55 of Marshalling and cable boxes(if applicable)	We wish to bring to your kind notice that, against this cable boxes are not applicable. Hence the Marshalling box is complied to IP 55 only. So, there is no need to test. Kindly Confirm.	IP55 test report of marshalling box to be submitted in bid documents
43	Clause No.7.2.	8. Tests on On-load tap changer.	We wish to bring to your kind notice that, we will submit test reports from OEM. Kindly Confirm.	OEM Type Test report is accepted .However Operation of OLTC on load will have to be performed during final inspection at Transformer Manufacturers Premises
44	Clause No:5.13	iv. Prismatic oil level indicators with red colour float shall be provided on main tank and OLTC tank conservator.	We wish to bring to your kind notice that, we have observed that oil leaks due to using prismatic oil level indicators. So, against this we will provide plain oil level indicator with the aluminium support. Kindly Confirm.	This shall be as per tender specifications and bidder to ensure that there is no oil leakage.
45	Clause No:5.22	Sl.No.1. Mounting Pad Diameter - 150mm	We wish to bring to your kind notice that, against this we will provide a separate conservator for OLTC in the same compartment along with the main tank conservator. Kindly Confirm.	Separate conservator to be provided for OLTC.
46	Clause No:7.2	7. Temperature rise for determining the maximum temperature rise after continuous full load run.	We wish to bring to your kind notice that, we will conduct temperature rise test in our NABL accredited laboratory. Kindly Confirm.	This shall be as per tender specifications
47	Clause No:5.23	Sl.No.14. Auto manual selector switch - Potential free contact in marshalling box.	We wish to bring to your kind notice that, the operation of OLTC to be done in SCADA only. Hence, auto manual selector switch need to be installed in SCADA only. So, the potential free contact to be available there only. Kindly Confirm.	This shall be as per Tender Specifications
48	Clause No:5.23	ii. Two sets of independent, potential free contacts shall be provided for various alarms/trips as detailed below. The auxiliary voltage for alarm/ trip circuit shall be 48V DC for 33/11kV Transformer). DC system is required for a. Buchholz alarm b. OTI alarm c. WTI alarm (HV/LV based on WTI CT available) d. MOG (main) alarm e. MOG (OLTC) alarm f. Buchholz trip g. OTI trip h. WTI trip (HV/LV based on WTI CT available) i. OSR trip j. SPR trip k. PRV trip l. AC supply fail m. Motor Auto Trip	Against this except MOG and SPR we will provide only 1No contact only due to no availability of 2No contacts for devices. Kindly Confirm.	This shall be as per Tender specifications
49	Clause No:5.20	III. Tap changer indicator of OLTC along with suitable transducer and other necessary devices to provide two sets of 4-20mA signals along with one set of 1-16K resistance output shall be provided.	1-16K resistance output same has to be connected to transducer which is available in RTCC panel or protection panel. However as per tender specification RTCC panel is not in our scope of supply. Hence same is not in our scope of work.	This shall be as per Tender specifications
50	Clause No:5.15	VII.The OLTC motor shall be provided with 415 V auto changeover facilities.Tap position indication along with the various alarms of tap changer shall be indicated in the marshaling box.	Please note that the supply arrangement has to be made in the RTCC panel. However, the panel is not supplied by us hence 415V auto changeover facilities not in our scope of work.	This shall be as per Tender specifications
51	Clause No:5.1	III. All fasteners of M10 and below size should be of stainless steel. All fasteners of M12 and above size should be hot dip galvanized. To achieve a good quality corrosion free painting, bidder should provide epoxy plus polyurethane paint with minimum paint thickness of 120 microns.	Since transformer having requirement of Nut bolt on multiple location and we have facing the issue by using SS nut bolt in past. Its thread are breaking during service condition. Hence we have change to hot-dip galvanised type Nut bolt. Which is widely used across transformer industries. We request you to please accept the same.	This shall be as per Tender Specifications.
52	Clause No:7.2	TYPE TEST NITROGEN INJECTION DRAIN AND STIR SYSTEM(NIDS)	NITROGEN INJECTION DRAIN AND STIR SYSTEM and Non return valve is not in our scope.If required we will provide provision for it . Kindly confirm the same.	This is in scope of supply.
53	Clause No:7.2	c) Long duration induced AC voltage test (ACLD) transformer winding $72.5 < U_m \leq 170kV$.	We wish to bring to your kind notice that,As per IS 2026-3 This will be applicable for above 72kV.. So it is not applicable for 33kV. Kindly confirm?	This is not applicable.

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54	Clause No:5.9	V. d. Top Oil Filling Plugs	Type of cooling is given as ONAN/ONAF, it means that heat dissipation will be done by Oil Natural and Air Natural/Oil Natural and Air Forced. So forced Oil cooling with oil filling Plugs is not required.	Top Oil Filling plug is required
55	Clause.No:4.1(25) & 5.3(V)	Clause.No:4(30) Maximum current density for HV and LV winding for rated current given as - 2.6 Amps/Sq.mm Winding-(V). The current density of coil shall not exceed 2.6 Amps/ sq mm at min tap of respective PTR's higher rating.	We wish to bring to your kind notice that, these two clauses are contradicting to each other. Please confirm the maximum Current density.	The current density of coil shall not exceed 2.6 Amps/ sq mm at any tap of respective PTR's higher rating(16 MVA for 12.5 /16 MVA & 25 MVA for 20/25 MVA)
56	Clause No.5.27	As per Clause No.5.27. MAKE OF MAJOR COMPONENTS & RAW MATERIALS b) Core -- M/S AK Steels, POSCO, Kawasaki/JFE, Nippon Steel, Thyssenkrup	We wish to bring to your kind notice that, kindly add the below mentioned vendors also: 1.Baoshan Iron & Steel Co, China 2.NOVOLOPESTSK STEEL (NLMK) RUSSIA 3.VIZ STEEL LTD, RUSSIA Kindly Confirm.	This shall be as per tender specifications
FOR 33/11 KV -20/25MVA Power Transformers				
57	Clause No.4.0(4.1)	Sr.No.12. Percentage Impedance voltage on normal tap at base MVA(Tolerance shall be as per IS:2026 Part-1, Clause 9, Table No.1) - 10% or 12% Note: Percentage Impedance will specified during Tender/Detailed Engineering	Against these, we presume that 10% is for 20MVA and 12% is for 25MVA Base. But, as the rating of transformer is 20/25MVA if the impedance at 20MVA is 10% then the impedance at 25MVA will be 12.5%. Kindly Confirm.	10% @ 20 MVA , 12.8% @ 25 MVA;however loss level to be matched with the TS
58	Clause No.4.0(4.1)	Sr.NO.36. On Load Tap changer(OLTC) on HV side b) Range: Option-01 # (+4.686%) to (-20.28%) in steps of 1.56%. Option-02 # (+5%) to (-15%) in steps of 1.25%. Option-03 # (+10%) to (-10%) in steps of 1.25%. d) Principle Tap position: Principle Tap: Option 01 # 5th Option 02 # 9th	Against these, we are already supplying transformer for Tata Power orissa divisions with Option-01 # (+4.686%) to (-20.28%) in steps of 1.56% which is type tested also. If any change in tap range then we presume that, there is no need to conduct again the type tests after receiving the order against this tender. d)Principle Tap position: for Option 01 the principle tap will be at 4th position and for Option 02 the principle will be at 5th position. Kindly Confirm.	To be decided during detailed engineering
59	Clause No.4.0(4.1)	Sr.No.38. Transformer Dimensions(Limiting) - 20/25MVA(ONAN/ONAF)(33/11KV) : 6M X 4.8M	Against these, we will provide 10%(+/- Tol) on transformer dimensions Kindly confoirm.	As per TS
60	Clause No.4.0(4.3)	Optional for NCT(To be finalized during Tender evaluation) 4.3. Neutral CT(Bushing CT): Supplier to provide suitably sized 2 core CT with PS class & 5P20. CTR % other parameters shall be decide during detailed engineering.	Against these, Kindly confirm NCT is required or Optional only.	NCT is required.
61	Clause No.5.2	II. The Grade of core shall be M3 or 23PH85D(0.23MM).	Against these, we will provide core grade as per our design prattice by meeting the No Load Losses. Kindly Confirm.	The Grade of core shall be M3 or 23PH85D(0.23MM) or better
62	Clause No.5.3	XI.The change in impedance values between the winding (HV/LV) shall not exceed $\pm 10\%$ of nominal impedance value as specified at all taps on HV/LV side.	Against this we will proceed tolerance on Impedance as per Clause No 4.1(Sr.No.12.) As per IS:2026 Part-1). Kindly confirm?	This shall be as per Tender Specifications

Sr. No.	Detailed Reference to Tata Power Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	
63	Clause No.5.8.	Primary Side Termination (66kV & 33kV) Option-01 (For Outdoor Switchgear) Option-02 (For Indoor Switchgear - with Cable box) Secondary Side Termination (11KV) Option-01 (For Outdoor Switchgear) Option-02 (For Indoor Switchgear - with Cable box)	Against these, Kindly confirm the both Primary & Secondary side termination.	This shall be finalised during detailed engineering.
64	Clause No.5.11.	Oil: Type: Type-II Uninhibited. Ester Oil:(If requirement is specifically mentioned in Tender)	Against these, Kindly confirm the Oil is Uninhibited or Ester oil.	Type -II Unihibitted as per IS 335 Latest Amnd.
65	Clause No.12.	V. A shock recorder also shall be provided during transport. Data of the same shall be shared during execution.	Generally for this capacity of transformers shock recorders are not required for transport. Kindly confirm.	This shall be as per Tender Specifications
66	Clause No.7.2.	10. Test to verify IP55 of Marshalling and cable boxes(if applicable)	We wish to bring to your kind notice that, against this cable boxes are not applicable. Hence the Marshalling box is complied to IP 55 only. So, there is no need to test. Kindly Confirm.	IP55 test report of marshalling box to be submitted in bid documents
67	Clause No.7.2.	8. Tests on On-load tap changer.	We wish to bring to your kind notice that, we will submit test reports from OEM. Kindly Confirm.	Noted and accepted.
68	Clause No:5.13	iv. Prismatic oil level indicators with red colour float shall be provided on main tank and OLTC tank conservator.	We wish to bring to your kind notice that, we have observed that oil leaks due to using prismatic oil level indicators. So, against this we will provide plain oil level indicator with the aluminium support.	This shall be as per tender specifications and bidder to ensure that there is no oil leakage.
69	Clause No:5.22	Sl.No.1. Mounting Pad Diameter - 150mm	We wish to bring to your kind notice that, against this we will provide a separate conservator for OLTC in the same compartment along with the mian tank conservator. Kindly Confirm.	Separate conservator to be provided for OLTC.
70	Clause No:7.2	7. Temperature rise for determing the maximum temperature rise after continuous full load run.	We wish to bring to your kind notice that, we will conduct temperature rise test in our NABL accredited laboratory. Kindly Confirm.	This shall be as per tender specifications
71	Clause No:5.23	Sl.No.14. Auto manual selector switch - Potential free contact in marshalling box.	We wish to bring to your kind notice that, the operation of OLTC to be done in SCADA only. Hence, auto manual selector switch need to installed in SCADA only. So, the potential free contact to be available there only. Kindly Confirm.	This shall be as per Tender Specifications
72	Clause No:5.23	ii. Two sets of independent, potential free contacts shall be provided for various alarams/trips as detailed below. The auxiliary voltage for alarm/ trip circuit shall be 48V DC for 33/11kV Transformer). DC system is required for a. Buchholz alarm b. OTI alarm c. WTI alarm (HV/LV based on WTI CT available) d. MOG (main) alarm e. MOG (OLTC) alarm f. Buchholz trip g. OTI trip h. WTI trip (HV/LV based on WTI CT available) i. OSR trip j. SPR trip k. PRV trip l. AC supply fail m. Motor Auto Trip	Against this except MOG and SPR we will provide only 1No contact only due to no availability of 2No contacts for devices. Kindly Confirm.	This shall be as per Tender specifications
73	Clause No:5.20	III. Tap changer indicator of OLTC along with suitable transducer and other necessary devices to provide two sets of 4-20m A signals along with one set of 1-16K resistance output shall be provided.	1-16K resistance output same has to be connected to transducer which is available in RTCC panel or protection panel. However as per tender specification RTCC panel is not in our scope of supply. Hence same is not in our scope of work.	This shall be as per Tender specifications

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74	Clause No:5.15	VII.The OLTC motor shall be provided with 415 V auto changeover facilities.Tap position indication along with the various alarms of tap changer shall be indicated in the marshaling box.	Please note that the supply arrangement has to be made in the RTCC panel. However, the panel is not supplied by us hence 415V auto changeover facilities not in our scope of work.	This shall be as per Tender specifications
75	Clause No:5.1	III. All fasteners of M10 and below size should be of stainless steel. All fasteners of M12 and above size should be hot dip galvanized. To achieve a good quality corrosion free painting, bidder should provide epoxy plus polyurethane paint with minimum paint thickness of 120 microns.	Since transformer having requirement of Nut bolt on multiple location and we have facing the issue by using SS nut bolt in past. Its thread are breaking during service condition. Hence we have change to hot-dip galvanised type Nut bolt. Which is widely used across transformer industries. We request you to please accept the same.	This shall be as per Tender specifications
76	Clause No:7.2	TYPE TEST NITROGEN INJECTION DRAIN AND STIR SYSTEM(NIDS)	NITROGEN INJECTION DRAIN AND STIR SYSTEM and Non return valve is not in our scope.If required we will provide provision for it . Kindly confirm the same.	This is in scope of supply.
77	Clause No:7.2	e) Long duration induced AC voltage test (ACLD) transformer winding 72.5<Um≤170kV.	We wish to bring to your kind notice that,As per IS 2026-3 This will be applicable for above 72kV.. So it is not applicable for 33kV. Kindly confirm?	This is not applicable.
78	Clause No:5.9	V. d. Top Oil Filling Plugs	Type of cooling is given as ONAN/ONAF, it means that heat dissipation will be done by Oil Natural and Air Natural/Oil Natural and Air Forced. So forced Oil cooling with oil filling Plugs is not required.	Oil filling plugs are required.
79	Clause.No:4.1(25) & 5.3(V)	Clause.No:4(30) Maximum current density for HV and LV winding for rated current given as - 2.6 Amps/Sq.mm Winding-(V). The current density of coil shall not exceed 2.6 Amps/ sq mm at min tap of respective PTR's higher rating.	We wish to bring to your kind notice that, these two clauses are contradicting to each other. Please confirm the maximum Current density.	The current density of coil shall not exceed 2.6 Amps/ sq mm at any tap of respective PTR's higher rating(16 MVA for12.5 /16 MVA & 25 MVA for 20/25 MVA)
80	Clause No.5.27	As per Clause No.5.27. MAKE OF MAJOR COMPONENTS & RAW MATERIALS b) Core -- M/S AK Steels, POSCO, Kawasaki/JFE, Nippon Steel, Thyssenkrup	We wish to bring to your kind notice that, kindly add the below mentioned vendors also: 1.Baoshan Iron & Steel Co, China 2.NOVOLIPETSK STEEL (NLMK) RUSSIA 3.VIZ STEEL LTD, RUSSIA Kindly Confirm.	This shall be as per tender specifications
Pre-bid queries - Commercial				
81	As per Pre-qualification Criteria: A.Technical Pre-Qualification As per Pre-qualification Criteria: B.Financial Pre-Qualification	At least two (02) Performance Certificate by any DISCOMs / PSUs / Reputed companies is to be submitted. The work against these issued certificates should be completed in last 07 years from the date of bid submission. In case the bidder has got previous association with TP DISCOMs for supply of similar product, performance feedback of the same will be solely considered irrespective of the performance certificate issued by bidder's other customers. Experience - The bidder must have supplied for same or higher rating (line item wise); a. A minimum order of 100% of tender qty. during last 5 years Or, b. A single order of 75% of tender qty. nos. in last 5 years Or, c. Two orders of 50% of tender qty. in each, whichever is maximum in last 5years	We bring to your kind notice that, there are very limited tenders floated by the DISCOMs in INDIA to call for procurement of Tendered item of 20/25MVA. We have also recently executed these rating of transformer to TATA Power Odisha DISCOMs sucessfully. So, we request you to kindly allow us to submit the Experience and performance certificates pertaining to power transformers of 12.5MVA and 16MVA rating as a part of qualification criteria for 20/25MVA Power Transformers, which enable us to qualify and being a competitive in this particular tender. Please review and confirm your acceptance for the same.	As per Tender As per Tender
82	As per Clause No. 8 Type Test Certificates in technical specification	TYPE TEST CERTIFICATES: The Bidder shall furnish the type test certificates of the Two Winding Power Transformer for the tests as mentioned above as per the corresponding standards. All the tests shall be conducted at CPRI / ERDA as per the relevant standards. Type tests should have been conducted in during the period not exceeding 5 years from the date of opening the bid. In the event of any discrepancy in the test reports, i.e. any test report not acceptable or any/all type tests (including additional type tests, if anv) not carried out, same shall be carried out	We previously executed the orders for these rating of transformers at TATA Power odisha DISCOMs and we are also currently executing the orders too. So, we will not repeat the type tests again for these transformers against this tender requirement. Please review and confirm your acceptance.	Type test reports to be checked during technical evaluation
83	As per Clause No.10 Reverse Auction	Reverse Auction: Bidders shall be allowed to participate in Reverse auction as per following criteria hence bidders are advised to quote their most competitive rates while submitting the bids to avoid disqualification from participation in Reverse Auction.	Against this, we request you to allow all the bidders who are qualified techno-commercially. Since, this clause is not mentioned in the M/s. TATA Power subsidiary DISCOMs (i.e., M/s. TPDDL, TPCL, Mumbai and in previous Tata Power Odisha DISCOM tenders). So, we request you to remove the restriction on not allowing the highest bidders for RA and allow all the bidders to participate in the Reverse auction unconditionally. We noted your delivery requirement in tender specification, we are considering the delivery schedule of 12.5/16MVA for 5MVA and 8MVA Power Transformer also.	As per Tender
84	As per Clause No.6 delivery period in Special Conditions of Contract	Delivery Period: Delivery period (for 12.5 /16 MVA PTR) shall be 120 days + 30 days (considering the approval of drawing / GTP) from date of receipt of release order for the first lot however for remaining lots the delivery period will be 120 days from RO date. Delivery period (for 20 /25 MVA PTR) shall be 150 days + 30 days (considering the approval of drawing / GTP) from date of receipt of release order for the first lot however for remaining lots the delivery period will be 150 days from RO date.	Please confirm your acceptance	As per Tender

Sr. No.	Detailed Reference to Tata Power Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	
85	As per Clause No.7 Payment Terms in Special Conditions of Contract	Payment Terms: 100% payment within 60 days of submission of error-free Invoice complete in all respects. However, for MSME the payment cycle shall be 45 days.	We bring to your kind notice that, many DISCOMs releasing the payment within 30 days from the date of receipt of materials /submission of bills. So, we request you to kindly amend the payment terms as follows: 100% payment within 30 days of submission of error-free Invoice complete in all respects.	As per Tender
86	As per ANNEXURE-A, Performa for Bid Security Bank Guarantee	PROFORMA FOR BID SECURITY BANK GUARANTEE: 1.The TP Central Odisha Distribution Limited, Bhubaneswar (Page No. 240) 2.TP Northern Odisha Distribution Limited, Balasore (Page No. 285) 3.TP Western Odisha Distribution Ltd, Burla (Page No. 378) 4. The TP Southern Odisha Distribution Limited, Berhampur (Page No. 336)	Against this, there are Proforma for Bank Guarantees for each DISCOMs. We understand that this is a Centralized Contracts Group tender floated by TPCODL, so we are considering the Proforma of TPCODL for Bid Security Bank Guarantee. Please review and confirm	Already mentioned in Page No.9 : GCC-TPCODL for Format of Bank Guarantee
87	5.1.2 Second Part : Techno-Commercial Bid	3. Type Test Certificate* of same or higher rating. *The type tests specified in technical specifications should have been carried out within five years (unless otherwise explicitly stated) prior to the date of opening of technical bids and test reports are to be submitted along with the bids. If type tests carried out are not within the five years prior to the date of bidding, the bidder will arrange to carry out type tests specified, at his cost. The decision to accept/ reject such bids rests with DISCOM.	We have SC report dt.13.03.2018 of rating 20/28MVA 33/11.55kV and same shall be submitted in case of 20/25MVA requirement. Please confirm. For balance ratings we shall submit 5MVA, 8MVA & 12.5/16MVA Test reports.	Type test of Higher or,same rating is accepted .In case Bidder is submitting Higher rating Type Test then design similarity proof to be submitted
88	13.1. Special Conditions of Contract(6)	Delivery period: Delivery period (for 12.5 /16 MVA PTR) shall be 120 days + 30 days (considering the approval of drawing / GTP) from date of receipt of release order for the first lot however for remaining lots the delivery period will be 120 days from RO date. Delivery period (for 20 /25 MVA PTR) shall be 150 days + 30 days (considering the approval of drawing / GTP) from date of receipt of release order for the first lot however for remaining lots the delivery period will be 150 days from RO date.	5MVA and 8MVA delivery period not mentioned in Tender document. Hence, kindly amend the delivery schedule as below:- Delivery period (for 5 and 8MVA PTR) shall be 120 days + 30 days (considering the approval of drawing / GTP) from date of receipt of release order for the first lot however for remaining lots the delivery period will be 120 days from RO date. Delivery period (for 12.5 /16 and 20 /25 MVA PTR) shall be 150 days + 30 days (considering the approval of drawing / GTP) from date of receipt of release order for the first lot however for remaining lots the delivery period will be 150 days from RO date. We request you to kindly consider the above and request to amend the delivery timelines accordingly.	As per Tender
89	ANNEXURE-1:PRICE SCHEDULE	4.Issuance of Release Orders (RO) shall be done by respective Discoms as per their requirement.	Individual discom should issue the tentative delivery timelines of total quantity while issuing RC itself. Please confirm	May be discuss at the time of RC issuance
Technical Specification for 33/11kV 5MVA and 8 MVA Power Transformer				
90	As per clause 4.1.19	Bushings with clearances: HV: Phase to Phase: 350 Phase to ground: 320 Phase to ground : 222 in Box LV: (ph-ph/ ph-e) : 170mm / 170 mm	Terminal arrangement shall be considered as : a.Primary Side termination (33KV)-Bare bushings on top cover (With extension bus bar). b.Secondary Side termination (11KV) -Bare bushings on top cover (With extension bus bar).	Shall be confirmed during detailed engineering
91	As per clause 4.1.40(b)	On Load Tap changer (OLTC) on HV Side Option 1: +5% to -15% in steps of 1.25% Option 2 : +4.68% to -20.28% in steps of 1.56% Note: Tapping range to be confirmed at the time of release of PO by concerned DISCOM.	Kindly confirm OLTC Tap range.	Shall be confirmed during detailed engineering
92	As per clause 4.1.40(d)	Principal Tap Position Principal Tap : Option 01 # 5Th Option 02 # 4Th Note: Principal Tap Position to be confirmed at the release of PO by Concerned DISCOM.	Kindly confirm principal Tap position.	Shall be confirmed during detailed engineering

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93	As per clause no. 5.8	5. GENERAL CONSTRUCTION 5.8 BUSHINGS: IX. The bushings shall have a link type isolating facility for tap for maintenance tests viz. power factor measurement etc. (Terminal shall be provided for the measurement of power factor and tan delta).	Terminal arrangement: a.Primary Side termination (33KV)-Bare bushings on top cover (With extension bus bar). b.Secondary Side termination (11KV) -Bare bushings on top cover (With extension bus bar).	Shall be confirmed during detailed engineering
	As per clause 5.8(XI)	a.Termination Arrangement on 11KV and 33KV Side : Option 1: (33KV Indoor AIS/GIS and 11KV indoor AIS) a)For 33 KV side cable termination, Palm Connector & Extended Bus-bar of suitable size (60mm X 10mm) for termination of 1 runs of 3C x 400 sqmm. Proper supporting arrangement for extended bus bar and cables shall be provided. b) For 11 KV side cable termination, Palm Connector & Extended Bus-bar of suitable size (60mm X 10mm) for termination of 2 runs of 1C x 630 sqmm. Proper supporting arrangement for extended bus bar and cables shall be provided. c) Copper bus bar for connecting transformer bushings to cables with support insulators and insulation sleeve d) Frame for cable mounting with HDPE cleats. e) Detailed size of all the item shall be submitted during detailed engineering for approval. f) Suitable Bimetallic Connector to be supplied wherever applicable		Shall be confirmed during detailed engineering
		Option 2: (33KV Outdoor Switchyard and 11KV indoor AIS) a) On 33KV side, suitable provision to connect Zebra/Panther/Dog/Coyote Conductor. b) For 11 KV side cable termination, Palm Connector & Extended Bus-bar of suitable size (60mm X 10mm) for termination of 2 runs of 1C x 630 sqmm. . Proper supporting arrangement for extended bus bar and cables shall be provided c) Frame for cable mounting with HDPE cleats. d) Detailed size of all the item shall be submitted during detailed engineering for approval. e) Suitable Bimetallic Connector to be supplied wherever applicable		Shall be confirmed during detailed engineering
		Option 3: (33KV Outdoor Switchyard and 11KV Outdoor Switchyard): a) On 33KV side, suitable provision to connect Zebra/Panther/Dog/Coyote Conductor. b) On 11KV side, suitable provision to connect Zebra/Panther/Dog/Coyote Conductor. c) Detailed size of all the item shall be submitted during detailed engineering for approval. d) Suitable Bimetallic Connector to be supplied wherever applicable		Shall be confirmed during detailed engineering
94	As per clause no. 5.9	5. GENERAL CONSTRUCTION 5.9 RADIATORS V. The following accessories shall be provided for radiator: d. Top Oil filling Plugs	Top oil filling plugs are not considered for the offered transformers (in case of ONAN). Please confirm.	Top fillings plugs are required.
95	As per clause no. 5.10	5. GENERAL CONSTRUCTION 5.10 INTERNAL EARTHING Provision of complete earthing of transformer and associates should be ensure bybidders. Earthing of Main tank, OLTC Conservator, Radiator, and other shall be ensured through 50X6mm GI flat with double hole provision wherever applicable withminimum 80-100mm length.	Supply of IDS/NIFPS including providing suitable provisions/valves on the tank/jobis are not required for the offered 5MVA & 8MVA jobs. Please confirm.	NIFPS is not required for 5 & 8 MVA Power Transformers

Sr. No.	Detailed Reference to Tata Power Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	
96	As per clause no. 5.13	5. GENERAL CONSTRUCTION 5.13 OIL PRESERVING EQUIPMENT IV. Prismatic oil level indicators with red colour float shall be provided on main tank and OLTC tank Conservator. Dual contacts are required for both MOGs (Main Tank & OLTC conservator).	In line with the earlier executed contract, plain prismatic oil level gauges without float and with clear visibility of oil level shall only be provided. Please confirm	This shall be as per Tender Specifications
	As per clause no. 5.14	5. GENERAL CONSTRUCTION 5.14 OLTC CONSERVATOR TANK III. Prismatic Oil level indicator with red color float.		This shall be as per Tender Specifications
97	As per clause no. 5.19	5. GENERAL CONSTRUCTION 5.19 OTI A dial-type indicating thermometer of robust pattern mounted on the side of the transformer at a convenient height to read the temperature in the hottest part of the oil and fitted with alarm and trip contacts and contacts for switching in and switching out the cooling system at predetermined temperatures.	Instead we are providing OTI (inside the marshalling box), in line with earlier supplies. Please confirm.	Noted and accepted
98	As per clause no. 5.22	5. GENERAL CONSTRUCTION 5.22 MOG: It should have cable disconnecting facility at top of MOG, to facilitate testing of MOG.	In line with our regular supplies, we are providing MOG and suitable function of this MOG (i.e, NO / NC) can be verified at terminal blocks in Marshalling box (at MOG terminated place). Please confirm.	Noted and accepted
99	As per clause no. 5.25	5. GENERAL CONSTRUCTION 5.25 ANTI RUSTING CORROSION TREATMENT: For all radiators (If Specifically Mentioned) the following painting procedure shall be followed. The metal spray (99.95% assay zinc) to a thickness about 100 microns with surface roughening and two coats of paints with proper supervision and quality checks. Bidder shall indicate separate price for metal spray of radiators.	In line with our earlier supplies, we are proceeding with, Epoxy base primer with POLYURETHANE (PU paint) shade 631 of IS:5 as finish coat for external surface of radiators are provided with .	Noted and accepted
100	As per clause no. 5.26	5. GENERAL CONSTRUCTION 5.26 MAKE OF MAJOR COMPONENTS & RAW MATERIALS a) Copper: M/S Sterlite, M/S Hindustan Copper, M/S Hindalco. b) Core: M/S AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel. c) Insulation paper and Pressboards: ITC paper, ABB, Raman Boards- Mysore, Senapathy Whiteley – Bangalore d) Transformer Oil (Mineral oil): Savita, Apar, Gandhar e) Gaskets & Corks: Nu Cork, Anchor Corks f) Steel for Tank: M/s, TATA Steel, M/s SAIL, M/s. JSW Steel, M/s. IISCO, M/s. RINL/Vizag Steel, M/s. Jindal Steel, g) Dehydrating Breather: Yogya, Anushree, Electrical engineers h) Bucholz, PRD, SPR, OTI , WTI, and other devices Reputed make to be approved by TATA POWER DISCOM during detailed engineering.	We request to allow us to go with following vendors in case of CRGO Core: M/s AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel & Thyssenkrupp, India and Transformer Oil : Apar, Savita, Gandhar & Raj petro	CRGO Core: M/s AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel & Thyssenkrupp, India are accepted Transformer Oil : Apar, Savita, Gandhar are accepted
101	As per clause no. 6(ff)	6. NAME PLATE AND MARKING RATING PLATE ff) Tan delta value of insulating oil and Kraft paper of transformer.	Kindly note that, in line with the earlier executed orders, Tan-delta value of insulating oil & Kraft paper to be considered from respective oil supplier's datasheets/test reports and these values can not provided on rating plates.	Noted
102	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE I.QR code shall be provided on name plate. QR code shall content the name plate details, approved GTP/Drawing and a video of overall functionality of transformer & associate components	In line with the earlier executed orders, QR plate shall be provided separately which shall contains OEM name, Rating, Voltage Class, Losses, Conductor material etc.,	Noted
103	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE II."Sign writing shall also be provided as per the format attached with this specification	Request to kindly provided the sign writing document for our review and re-confirmation.	This shall be provided during detailed engineering
104	As per clause no. 7	7.1 ROUTINE TESTS 7.2 TYPE TESTS	All routine tests and type tests shall be performed as per the mutually agreed QAP followed for earlier executed orders.	This shall be as per Tendered specification. QAP shall be finalised during detailed engineering
105	As per Clause no.7.3(Viii)	Oil: All standard tests in accordance with IS: 335 shall be carried out on Transformer oil sample before filling in the transformer.	Transformer oil is supplied meeting latest version of IS 335(specification for New insulating oils).	Noted
106	As per clause no. 12	12. PACKING AND TRANSPORT IV. Provisions for monitoring of oil and gas pressure during transport and storage and a make-up Nitrogen cylinder shall be made.	The offered transformer shall be shipped with oil filled up to transport oil level gauge as these all are smaller in MVA ratings. Hence, nitrogen cylinders and pressure gauges shall not be provided. Please confirm	Noted
107	As per clause No.19. SCHEDULE- "A" GUARANTEED TECHNICAL PARTICULARS:	a)Partial discharge level b)Noise level	a) Partial discharge is not considered as voltage of this transformer is of 33 kV. b) we are proceeding noise level as per NEMA-TR-1	Noted
108	As per clause no. 5.2(xiii)	a) The grounding lead from the core shall be brought out of the tank through a 11 kV class bushing and grounded externally.	12 kV class bushing is provided for core and channel earthing purpose.	1.1 kV Bushing is acceptable

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109	As per clause 10:Inspection at Store(g)	Shock/impact recorder data analysis to be submitted by bidder to ascertain the concealed damage.	For these smaller rating power transformers shock/impact recorders are not required and same are not provided.	This shall be as per Tendered specification.
110	As per clause no. 5.4(ii)	Inter layer insulation both for HV and LV windings shall be DPC and compressed pressboard of reputed make (subject to approval of TPCODL).	In case of the windng construction considered for the offered trasnformers, inter-layer insulation is not required (as per type tested design)	Noted
111	As per clause 5.23	FRLS	Cable type from components to marshalling box : FRLS	Shall be as per Tender specifications
Technical Specification for 33/11kV 12.5/16 MVA Power Transformer				
112	As per clause 4.1.12	Percentage impedance voltage on normal tap at Base MVA - 10 % or 12% (Tolerance shall be as per IS 2026 Part-1,Clause 9, Table No.1) Note: Percentage Impedance will specified during Tender/Detailed engineering	Kindly confirm impedance percentage at 20MVA & 25MVA(Include tolerance).	Percentage impedance at 20 MVA shall be 10%. Bidder to submit calculations of percentage impedance at 20 & 25MVA during detailed engineering . Percentage impedance at 12.5% MVA shall be 10%. Bidder to submit calculations of percentage impedance at 12.5 & 16 MVA during detailed engineering .;However the loss level to be maintained as per TS
113	As per clause 4.1.19	Bushings with clearances: HV: Phase to Phase: 350 Phase to ground: 320 Phase to ground : 222 in Box LV: (ph-ph/ ph-e) : 170mm / 170 mm	Terminal arrangement shall be considered as : a.Primary Side termination (33KV)-Bare bushings on top cover (With extension bus bar). b.Secondary Side termination (11KV) -Bare bushings on top cover (With extension bus bar).	Shall be decided during detailed engineering
114	As per clause 4.1.25 As per clause 5.3.V	Maximum current density for Primary and Secondary winding for rated current:2.6 A / mm2 The current density of coil shall not exceed 2.6 Amps/ sq mm at min tap of Respective PTR's higher rating.	Current density shall be 2.6A/mm2 for all taps @ 16MVA base	The current density of coil shall not exceed 2.6 Amps/ sq mm at any tap of respective PTR's higher rating(16 MVA for12.5 /16 MVA & 25 MVA for 20/25 MVA)
115	As per clause 4.1.28	a)No load loss(fixed losses) KW- 9.7 KW b)Load losses at 75°C KW (at 20MVA Base)- 58KW c)Maximum guaranteed Auxiliary load losses(includes fans/coolers capacity)- 2KW	Losses shall be as below a) No load loss(fixed losses) kW : 9.7 KW b) Load losses : 95kW (Max.) @ 16 MVA & 58 kW (Max.) @ 12.5 MVA e)Maximum guaranteed Auxiliary load losses(includes fans/coolers capacity)-2KW	Shall be as per Tender specifications
116	As per clause 4.1.38	Transformer Dimension(Limiting) Limiting dimension: 20 MVA (ONAN)(33/11KV) : 5.5MX4.8M 12.5/16MVA(ONAN/ONAF)(33/11KV) : 5.3Mx4.7M 20/25 MVA (ONAN/ONAF) (33/11KV) : 6M x4.8 M 25/31.5MVA (ONAN/ONAF)(66/11KV) :6.7M x5.6M	In case of 12.5/16MVA we shall confirm max. possible dimensions along with the technical offer.This is for your information.	Noted
117	As per clause 4.1.40(b)	On Load Tap changer (OLTC) on HV Side Option-01 # (+ 4.686) to (-20.28 %) in steps of 1.56%. Option-02 # (+ 5%) to (-15%) in steps of 1.25% Option-03 # (+10%) to (- 10%) in steps of 1.25% Note: Tapping range will be confirmed by respective TP DISCOM during Detailed engineering Stage.)	Kindly confirm OLTC Tap range.	This shall be finalised during detailed engineering.
118	As per clause 4.1.40(d)	Principal Tap Position Principal Tap : Option 01 # 5Th Option 02 # 9Th Note: Principal Tap Position to be confirmed at the release of PO by Concerned DISCOM.	Kindly confirm OLTC Tap range.	This shall be finalised during detailed engineering.

Sr. No.	Detailed Reference to Tata Power Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification																																																																
119	As per clause 4.2	<table border="1"><thead><tr><th>Sl. No.</th><th>WTI (V/A/%)</th><th>12.5/385MVA</th><th>20/25MVA</th><th>16/20MVA</th><th>20/25MVA</th><th>25/31.5MVA</th></tr></thead><tbody><tr><td>1</td><td>400/11</td><td>66KV side</td><td></td><td>175/1</td><td>210/1A</td><td>210/1A</td></tr><tr><td></td><td></td><td>11KV side</td><td></td><td>1049/1</td><td>1312/1A</td><td>2005/1 A</td></tr><tr><td>2</td><td>33/11</td><td>33KV side</td><td>200/1</td><td>435/1</td><td>350/1</td><td></td></tr><tr><td></td><td></td><td>11KV side</td><td>840/1</td><td>1131/1</td><td>1049/1</td><td></td></tr><tr><td>3</td><td colspan="6">Other CT Parameters</td></tr><tr><td>(a)</td><td colspan="6">Class</td></tr><tr><td>(b)</td><td colspan="6">Burden</td></tr><tr><td>(c)</td><td colspan="6">IP</td></tr></tbody></table> *WTI HV and LV side to be wired in Marshalling Panel. Optional for NCT (To be finalized during Tender Evaluation) 4.3 Neutral CT (Bushing CT): Supplier to provide suitably sized 2 core CT with PS class & 5P20. CTR & other parameters shall be decided during detailed Engineering	Sl. No.	WTI (V/A/%)	12.5/385MVA	20/25MVA	16/20MVA	20/25MVA	25/31.5MVA	1	400/11	66KV side		175/1	210/1A	210/1A			11KV side		1049/1	1312/1A	2005/1 A	2	33/11	33KV side	200/1	435/1	350/1				11KV side	840/1	1131/1	1049/1		3	Other CT Parameters						(a)	Class						(b)	Burden						(c)	IP						HV & LV WTI CT ratios shall be selected based on the No. of taps & higher tap position .Hence CT ratio will be decide based on your response (Clause No.6 & 7). However any changes from our consideration (TTDI) shall have price impact on your account.	Shall be as per Tender specifications
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120	As per clause no. 5.8	5. GENERAL CONSTRUCTION 5.8 BUSHINGS: IX. The bushings shall have a link type isolating facility for tap for maintenance tests viz. power factor	Terminal arrangement: a.Primary Side termination (33KV)-Bare bushings on top cover (With extension bus bar). b.Secondary Side termination (11KV) -Bare bushings on top cover (With extension bus bar).	This shall be finalised during detailed engineering.																																																															
	As per clause 4.1.37(a)	a.Primary Side termination (66KV & 33KV) Option-01 (For Outdoor Switchgear) a)On Primary side, suitable terminal connector for Zebra/Panther/Dog/Coyote Conductor. b)The Terminals shall be brought out through suitable 36kV or 72.5kV bushing for overhead connections. Silicon rubber based Insulation covers to be provided for complete live portion. c)Detailed size of all the item shall be submitted during detailed engineering for approval. d)Suitable Bimetallic Connector to be supplied wherever applicable		This shall be finalised during detailed engineering.																																																															
	As per clause 4.1.37(b)	b.Secondary Side termination (11KV) Option 01 (For Outdoor Switchgear) a)On Secondary side, suitable provision to connect Zebra/Panther/Dog/Coyote Conductor. b)The Terminals shall be brought out through suitable 17.5kV bushing for overhead connections. Silicon rubber based Insulation covers to be provided for complete live portion. c)Detailed size of all the item shall be submitted during detailed engineering for approval. d)Suitable Bimetallic Connector to be supplied wherever applicable		This shall be finalised during detailed engineering.																																																															
	As per clause 4.1.37(c)	(c)Neutral Terminal Arrangement ·Bidder shall submit the drawing for the cable box arrangement showing all the components, support structure arrangements and foundation details for the cable box support structure along with the offer. ·LV neutral shall be brought out through 11kV class bushing and shall also be suitable for direct grounding as well as for connection to 11kV class NGR		This shall be finalised during detailed engineering.																																																															
121	As per clause no. 5.2(xiii)	a) The grounding lead from the core shall be brought out of the tank through a 11 kV class bushing and grounded externally.	12 kV class bushing is provided for core and channel earthing purpose.	1.1 kV Bushing is acceptable																																																															
122	As per clause no. 5.4(ii)	Inter layer insulation both for HV and LV windings shall be DPC and compressed pressboard of reputed make (subject to approval of TPCODL).	In case of the winding construction considered for the offered trasnformers, inter-layer insulation is not required (as per type tested design)	Noted																																																															
123	As per clause no. 5.13	5. GENERAL CONSTRUCTION 5.13 OIL PRESERVING EQUIPMENT IV. Prismatic oil level indicators with red colour float shall be provided on main tank and OLTC tank Conservator. Dual contacts are required for both MOGs (Main Tank & OLTC conservator).	In line with the earlier executed contract, plain prismatic oil level gauges without float and with clear visibility of oil level shall only be provided. Please confirm	This shall be as per Tendered Specification																																																															
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124	As per clause no. 5.19	5. GENERAL CONSTRUCTION 5.19 OTI A dial-type indicating thermometer of robust pattern mounted on the side of the transformer at a convenient height to read the temperature in the hottest part of the oil and fitted with alarm and trip contacts and contacts for switching in and switching out the cooling system at predetermined temperatures.	Instead we are providing OTI (inside the marshalling box), in line with earlier supplies. Please confirm.	OTI & WTI shall be digital type																																																															
125	As per clause no. 5.22	5. GENERAL CONSTRUCTION 5.22 MOG: It should have cable disconnecting facility at top of MOG, to facilitate testing of MOG.	In line with our regular supplies, we are providing MOG and suitable function of this MOG (i.e, NO / NC) can be verified at terminal blocks in Marshalling box (at MOG terminated place). Please confirm.	This shall be as per Tendered Specification																																																															
126	As per clause 5.23	FRLS	Cable type from components to marshalling box : FRLS	This shall be as per Tendered Specification																																																															

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127	As per clause no. 5.26	5. GENERAL CONSTRUCTION 5.26 MAKE OF MAJOR COMPONENTS & RAW MATERIALS a) Copper: M/S Sterlite, M/S Hindustan Copper, M/S Hindalco. b) Core: M/S AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel. c) Insulation paper and Pressboards: ITC paper, ABB, Raman Boards- Mysore, Senapathy Whiteley – Bangalore d) Transformer Oil (Mineral oil): Savita, Apar, Gandhar e) Gaskets & Corks: Nu Cork, Anchor Corks f) Steel for Tank: M/s, TATA Steel, M/s SAIL, M/s. JSW Steel, M/s. IISCO, M/s. RINL/Vizag Steel, M/s. Jindal Steel, g) Dehydrating Breather: Yogya, Anushree, Electrical engineers h) Bucholz, PRD, SPR, OTI, WTI, and other devices Reputed make to be approved by TATA POWER DISCOM during detailed engineering.	We request to allow us to go with following vendors in case of CRGO Core: M/s AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel & Thyssenkrupp, India and Transformer Oil : Apar, Savita, Gandhar & Raj petro	CRGO Core: M/s AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel & Thyssenkrupp, India are accepted Transformer Oil : Apar, Savita, Gandhar are accepted
128	As per clause 5.28 Cooling Arrangement Sub Clause : 8. COOLER CONTROL & WIRING	Cooling Fans shall be suitable for operation with 415 volts, 3 phase, 4 wire, 50 Hz supply Auto changeover facility shall be provided to an alternate power supply. The auto changeover scheme shall be designed based on under-voltage relay logic, to take care voltage dips on 415V supply. Similarly, 2 separate control transformers 415/220V with auto changeover facility shall be provided 220V control circuits for light and heaters in marshalling box	This clause withdrawn by TPNODL i.e. 2 separate control transformers are not required.	Noted
129	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE I.QR code shall be provided on name plate. QR code shall content the name plate details, approved GTP/Drawing and a video of overall functionality of transformer & associate components	In line with the earlier executed orders, QR plate shall be provided separately which shall contains OEM name, Rating, Voltage Class, Losses, Conductor material etc.,	Noted
130	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE II."Sign writing shall also be provided as per the format attached with this specification	Request to kindly provided the sign writing document for our review and re-confirmation.	This shall be provided during detailed engineering
131	As per clause no. 7	7.1 ROUTINE TESTS 7.2 TYPE TESTS	All routine tests and type tests shall be performed as per the mutually agreed QAP followed for earlier executed orders.	This shall be as per Tendered specification. QAP shall be finalised during detailed engineering
132	As per clause 10:Inspection at Store(g)	Shock/impact recorder data analysis to be submitted by bidder to ascertain the concealed damage.	For these smaller rating power transformers shock/impact recorders are not required and same are not provided.	Shall be as per Tender specifications
133	As per clause no. 12	12. PACKING AND TRANSPORT IV. Provisions for monitoring of oil and gas pressure during transport and storage and a make-up Nitrogen cylinder shall be made.	The offered transformer shall be shipped with oil filled up to transport oil level gauge as these all are smaller in MVA ratings. Hence, nitrogen cylinders and pressure gauges shall not be provided. Please confirm	Noted
134	As per clause No.19. SCHEDULE- "A" GUARANTEED TECHNICAL PARTICULARS:	a)Partial discharge level b)Noise level	a) Partial discharge is not considered as voltage of this transformer is of 33 kV. b) we are proceeding noise level as per NEMA-TR-1	Noted
Technical Specification for 33/11kV 20/25 MVA Power Transformer				
135	As per clause 4.1.12	Percentage impedance voltage on normal tap at Base MVA -10 % or 12% (Tolerance shall be as per IS 2026 Part-1, Clause 9, Table No.1) Note: Percentage Impedance will specified during Tender/Detailed engineering	Kindly confirm impedance percentage at 20MVA & 25MVA(Include tolerance).	Percentage impedance at 20 MVA shall be 10%. Bidder to submit calculations of percentage impedance at 20 & 25MVA during detailed engineering .
136	As per clause 4.1.19	Bushings with clearances: HV: Phase to Phase: 350 Phase to ground: 320 Phase to ground : 222 in Box LV: (ph-ph/ ph-e) : 170mm / 170 mm	Terminal arrangement shall be considered as : a.Primary Side termination (33KV)-Bare bushings on top cover (With extension bus bar). b.Secondary Side termination (11KV) -Bare bushings on top cover (With extension bus bar).	This shall be finalised during detailed engineering.
137	As per clause 4.1.25	Maximum current density for Primary and Secondary winding for rated current:2.6 A / mm2	Current density shall be 2.6A/mm2 for all taps @ 20MVA base	The current density of coil shall not exceed 2.6 Amps/ sq mm at any tap of respective PTR's higher rating(16 MVA for12.5 /16 MVA & 25 MVA for 20/25 MVA)
	As per clause 5.3.V	The current density of coil shall not exceed 2.6 Amps/ sq mm at min tap of Respective PTR's higher rating.		

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138	As per clause 4.1.28	a)No load loss(fixed losses) KW- 12KW b)Load losses at 75°C KW (at 20MVA Base)- 64KW c)Maximum guaranteed Auxiliary load losses(includes fans/coolers capacity)- 2KW	Losses shall be as below a) No load loss(fixed losses) kW : 12 KW b) Load losses : 100kW (Max.) @ 25 MVA & 64kW (Max.) @ 20 MVA e) Maximum guaranteed Auxiliary load losses(includes fans/coolers capacity)-2KW	As per TS																																																															
139	As per clause 4.1.38	Transformer Dimension(Limiting) Limiting dimension: 20 MVA (ONAN)(33/11KV) : 5.5MX4.8M 12.5/16MVA(ONAN/ONAF)(33/11KV) : 5.3Mx4.7M 20/25 MVA (ONAN/ONAF) (33/11KV) : 6M x4.8 M 25/31.5MVA (ONAN/ONAF)(66/11KV) :6.7M x5.6M	In case of 20/25MVA we shall confirm max. possible dimensions along with the technical offer.This is for your information.	As per TS																																																															
140	As per clause 4.1.40(b)	On Load Tap changer (OLTC) on HV Side Option-01 # (+ 4.686) to (-20.28 %) in steps of 1.56%. Option-02 # (+ 5%) to (-15%) in steps of 1.25% Option-03 # (+10%) to (- 10%) in steps of 1.25% Note: Tapping range will be confirmed by respective TP DISCOM during Detailed engineering Stage.)	Kindly confirm OLTC Tap range.	This shall be finalised during detailed engineering.																																																															
141	As per clause 4.1.40(d)	Principal Tap Position Principal Tap : Option 01 # 5Th Option 02 # 9Th Note: Principal Tap Position to be confirmed at the release of PO by Concerned DISCOM.	Kindly confirm OLTC Tap range.	This shall be finalised during detailed engineering.																																																															
142	As per clause 4.2	<table><tr><th>Sl. No.</th><th>CTR (VA/PP)</th><th>12.5/16MVA</th><th>20/25MVA</th><th>16/20MVA</th><th>20/25MVA</th><th>25/31.5MVA</th></tr><tr><td>1</td><td>66KV side</td><td></td><td></td><td>175/1</td><td>218/1A</td><td>350/1A</td></tr><tr><td></td><td>11KV side</td><td></td><td></td><td>1045/1</td><td>1312/1A</td><td>2085/1A</td></tr><tr><td>2</td><td>33/11</td><td>380V/1</td><td>435/1</td><td>550/1</td><td></td><td></td></tr><tr><td></td><td>11KV side</td><td>848/1</td><td>1312/1</td><td>1045/1</td><td></td><td></td></tr><tr><td>3</td><td>Other CT Parameters:</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>(a)</td><td>Class</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>(b)</td><td>Burden</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>(c)</td><td>Temp</td><td></td><td></td><td></td><td></td><td></td></tr></table> *WTI HV and LV side to be wired in Marshalling Panel. Optional for NCT (To be finalized during Tender Evaluation) 4.3 Neutral CT (Bushing CT): Supplier to provide suitably sized 2 core CT with PS class & 5P20. CTR & other parameters shall be decided during detailed Engineering	Sl. No.	CTR (VA/PP)	12.5/16MVA	20/25MVA	16/20MVA	20/25MVA	25/31.5MVA	1	66KV side			175/1	218/1A	350/1A		11KV side			1045/1	1312/1A	2085/1A	2	33/11	380V/1	435/1	550/1				11KV side	848/1	1312/1	1045/1			3	Other CT Parameters:						(a)	Class						(b)	Burden						(c)	Temp						HV & LV WTI CT ratios shall be selected based on the No. of taps & higher tap position .Hence CT ratio will be decide based on your response (Clause No.6 & 7). However any changes from our consideration (TTDI) shall have price impact on your account.	Considering for higher MVA with higher Tap Position ,WTI CT to be provided
Sl. No.	CTR (VA/PP)	12.5/16MVA	20/25MVA	16/20MVA	20/25MVA	25/31.5MVA																																																													
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143	As per clause no. 5.8	5. GENERAL CONSTRUCTION 5.8 BUSHINGS: IX. The bushings shall have a link type isolating facility for tap for maintenance tests viz. power factor measurement etc. (Terminal shall be provided for the measurement of power factor and tan delta).	Terminal arrangement: a.Primary Side termination (33KV)-Bare bushings on top cover (With extension bus bar). b.Secondary Side termination (11KV) -Bare bushings on top cover (With extension bus bar).	This shall be finalised during detailed engineering.																																																															
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	As per clause 4.1.37(b)	b.Secondary Side termination (11KV) Option 01 (For Outdoor Switchgear) a)On Secondary side, suitable provision to connect Zebra/Panther/Dog/Coyote Conductor. b)The Terminals shall be brought out through suitable 17.5kV bushing for overhead connections. Silicon rubber based Insulation covers to be provided for complete live portion. c)Detailed size of all the item shall be submitted during detailed engineering for approval. d)Suitable Bimetallic Connector to be supplied wherever applicable		This shall be finalised during detailed engineering.																																																															
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144	As per clause no. 5.2(xiii)	a) The grounding lead from the core shall be brought out of the tank through a 11 kV class bushing and grounded externally.	12 kV class bushing is provided for core and channel earthing purpose.	1.1 kV Bushing is acceptable																																																															
145	As per clause no. 5.4(ii)	Inter layer insulation both for HV and LV windings shall be DPC and compressed pressboard of reputed make (subject to approval of TPCODL).	In case of the winding construction considered for the offered trasnformers, inter-layer insulation is not required (as per type tested design)	Noted																																																															

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146	As per clause no. 5.13	5. GENERAL CONSTRUCTION 5.13 OIL PRESERVING EQUIPMENT IV. Prismatic oil level indicators with red colour float shall be provided on main tank and OLTC tank Conservator. Dual contacts are required for both MOGs (Main Tank & OLTC conservator).	In line with the earlier executed contract, plain prismatic oil level gauges without float and with clear visibility of oil level shall only be provided. Please confirm	This shall be as per Tender specifications
	As per clause no. 5.14	5. GENERAL CONSTRUCTION 5.14 OLTC CONSERVATOR TANK III. Prismatic Oil level indicator with red color float.		This shall be as per Tender specifications
147	As per clause no. 5.19	5. GENERAL CONSTRUCTION 5.19 OTI A dial-type indicating thermometer of robust pattern mounted on the side of the transformer at a convenient height to read the temperature in the hottest part of the oil and fitted with alarm and trip contacts and contacts for switching in and switching out the cooling system at predetermined temperatures.	Instead we are providing OTI (inside the marshalling box), in line with earlier supplies. Please confirm.	Digital OTI & WTI shall be provided
148	As per clause no. 5.22	5. GENERAL CONSTRUCTION 5.22 MOG: It should have cable disconnecting facility at top of MOG, to facilitate testing of MOG.	In line with our regular supplies, we are providing MOG and suitable function of this MOG (i.e, NO / NC) can be verified at terminal blocks in Marshalling box (at MOG terminated place). Please confirm.	Noted
149	As per clause 5.23	FRLS	Cable type from components to marshalling box : FRLS	This shall be as per Tendered specifications
150	As per clause no. 5.26	5. GENERAL CONSTRUCTION 5.26 MAKE OF MAJOR COMPONENTS & RAW MATERIALS a) Copper: M/S Sterlite, M/S Hindustan Copper, M/S Hindalco. b) Core: M/S AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel. c) Insulation paper and Pressboards: ITC paper, ABB, Raman Boards- Mysore, Senapathy Whiteley – Bangalore d) Transformer Oil (Mineral oil): Savita, Apar, Gandhar e) Gaskets & Corks: Nu Cork, Anchor Corks f) Steel for Tank: M/s, TATA Steel, M/s SAIL, M/s. JSW Steel, M/s. IISCO, M/s. RINL/Vizag Steel, M/s. Jindal Steel, g) Dehydrating Breather: Yogya, Anushree, Electrical engineers h) Bucholz, PRD, SPR, OTI , WTI , and other devices Reputed make to be approved by TATA POWER DISCOM during detailed engineering.	We request to allow us to go with following vendors in case of CRGO Core: M/s AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel & Thyssenkrupp, India and Transformer Oil : Apar, Savita, Gandhar & Raj petro	CRGO Core: M/s AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel & Thyssenkrupp, India are accepted Transformer Oil : Apar, Savita, Gandhar are accepted
151	As per clause 5.28 Cooling Arrangement Sub Clause : 8. COOLER CONTROL & WIRING	Cooling Fans shall be suitable for operation with 415 volts, 3 phase, 4 wire, 50 Hz supply Auto changeover facility shall be provided to an alternate power supply. The auto changeover scheme shall be designed based on under-voltage relay logic, to take care voltage dips on 415V supply. Similarly, 2 separate control transformers 415/220V with auto changeover facility shall be provided 220V control circuits for light and heaters in marshalling box	This clause withdrawn by TPNODL i.e. 2 separate control transformers are not required.	Noted
152	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE I.QR code shall be provided on name plate. QR code shall content the name plate details, approved GTP/Drawing and a video of overall functionality of transformer & associate components	In line with the earlier executed orders, QR plate shall be provided separately which shall contains OEM name, Rating, Voltage Class, Losses, Conductor material etc.,	Noted
153	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE II."Sign writing shall also be provided as per the format attached with this specification	Request to kindly provided the sign writing document for our review and re-confirmation.	This shall be provided during detailed engineering
154	As per clause no. 7	7.1 ROUTINE TESTS 7.2 TYPE TESTS	All routine tests and type tests shall be performed as per the mutually agreed QAP followed for earlier executed orders.	This shall be as per Tendered specification. QAP shall be finalised during detailed engineering
155	As per clause 10:Inspection at Store(g)	Shock/impact recorder data analysis to be submitted by bidder to ascertain the concealed damage.	For these smaller rating power transformers shock/impact recorders are not required and same are not provided.	Shall be as per Tender specifications
156	As per clause no. 12	12. PACKING AND TRANSPORT IV. Provisions for monitoring of oil and gas pressure during transport and storage and a make-up Nitrogen cylinder shall be made.	The offered transformer shall be shipped with oil filled up to transport oil level gauge as these all are smaller in MVA ratings. Hence, nitrogen cylinders and pressure gauges shall not be provided. Please confirm	As per TS
157	As per clause No.19. SCHEDULE- "A" GUARANTEED TECHNICAL PARTICULARS:	a)Partial discharge level b)Noise level	a) Partial discharge is not considered as voltage of this transformer is of 33 kV. b) we are proceeding noise level as per NEMA-TR-1	Noted
158	Cluse no-5.3(Page-39),	The current density of coil shall not exceed 2.4 Amps/ sq mm at min tap of respective PTR's higher rating.	Current density shall be 2.4 Amp/sq.mm for all tap.	The current density of coil shall not exceed 2.6 Amps/ sq mm at any tap of respective PTR's higher rating(16 MVA for12.5 /16 MVA & 25 MVA for 20/25 MVA)

Sr. No.	Detailed Reference to Tata Power Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	
159	Cluse no-7.2(Page-68),T	Short Circuit withstand test.	Short circuit test shall not be conducted .Only test report of higher rating of transformer shall be submitted.	Shall be as per Tender specifications
160	page-96	HV and LV Neutral CT (Bushing CT) shall be in supplier's scope	Complete NCT details required	Shall be as per Tender specifications.NCT Details shall be provided during detailed engineering
161			Delivery shall be counted from the date of drawing Approval	As per Tender
162			Layout of site details required.	May be discuss at the time of RO issuance
163	7.2 TYPE TESTS	The type tests to be carried out by the Bidder shall include but not limited to the following: 1) Measurement of winding resistance. 2) Measurement of voltage ratio and check of voltage vector relationship. 3) Measurement of impedance voltage / short-circuit impedance (Principal tapping) and load loss. 4) Measurement of no load loss and current. 5) Measurement of insulation resistance. 6) Dielectric Test. 7) Temperature rise for determining the maximum temperature rise after continuous full load run. The ambient temperature and time should be stated in the test certificate. 8) Tests on on-load tap-changer. 9) Short Circuit withstand test. 10) Test to verify IP55 of Marshalling and cable boxes (if applicable) 11) Lightning Impulse voltage test with chopped wave. Note: The bidder shall submit the test report from CPRI or ERDA for the tests mentioned above.	We are submitting the following type test certificates for your kind review and consideration: Temperature Rise Test Certificate for 12.5/16 MVA Transformer – Dated 21.02.2022. Impulse Test Certificate for 12.5/16 MVA Transformer – Dated 09.02.2022. Please find both documents attached herewith. We confirm that the Short Circuit Type Test Report for the 12.5/16 MVA transformer will be submitted prior to the supply. Furthermore, we will also submit the following type test reports for the 20/25 MVA transformer before supply: Temperature Rise Test Report, Impulse Test Report & Short Circuit Test Report. We kindly request you to consider these submissions as fulfilling the type test requirements for all offered Transformer rating. Apart from the above-mentioned tests, no additional type tests will be conducted. Additionally, we will submit the IP55 Cable Box Certificate as required.	Type tests shall be reviewed during technical evaluation of tender
164			Please confirm, Suppose we will submit special type test report for higher rating transformer (Temp. rise, Impulse & Short Circuit), then no need to submit type test report and to be perform on lower rating transformes.	Type test of Higher or,same rating is accepted In case Bidder is submitting Higher rating Type Test then design similarity proof to be submitted
165	Stage Inspection	Bidder has to facilitate for stage inspection of Tank, HV and LV windings and Core of the offered transformers. Bidder has to facilitate for stage inspection of Tank, HV and LV windings in one inspection call without any extra charges. Multiple inspections calls for stage nspection-I will not be considered and the delay will be accountable at bidder end.	Please note: The VT and PT tank pressure tests are to be conducted at the OEM factory site. HV & LV winding and core inspections will be carried out at our manufacturing premises." What will be transformer qty/percentage for stage inspection - Please confirm.	Irrespective of qty ,Each Transformer tank will be checked for VT and PT.
166	NIFPS	TYPE TEST ON NITROGEN INJECTION DRAIN AND STIR SYSTEM (NIDS). The NIDS shall be subjected to the operational test at manufacturing works of Nitrogen Injection Fire Prevention and extinguishing system in presence of TPCODL's representative. The Manufacture's test certificates of various accessories of NIDS shall be furnished at the time of Inspection to the inspecting officer. Complete GTP & Drawing including mounting, support structure, earthing provision should be submitted for approval. NIDS valve opening should not create any hindrance to other parts operation	We will submit NIFPS OEM Certificate at the time of supply.	Necessary documents and valid certification/test reports shall be collected from OEM shall be submitted during detailed engineering
167	OIL:	In case of Natural Ester oil or Synthetic Ester Oil below are the requirements to be fulfilled:	Pls Confirm Natural Ester Oil or Synthetic Ester Oil to be used	Type -II Unihibitted as per IS 335 Latest Amnd.
168	PERFORMANCE	Transformer shall be compatible for Operation along with Tap Changer Control panel or Transformer Monitoring Unit (TMU). Supply of TMU is not in scope of Bidder.	Please Confirm TMU not in BA Scope	Supply of TMU is not in scope. But Power Transformer shall be TMU compatible.