

CENTRALIZED CONTRACTS GROUP**NIT No.: TPCODL/CCG/24-25/100000631 Dated. 29.04.2024****Corrigendum- I****NIT No. : TPCODL / CCG / 24-25 / 100000631 Dated. 29.04.2024****Rate Contract - Supply of Power Transformer for Tata Power Odisha Discoms****Dated 21th May 2024****Following changes in Scope of work in page no 4 of tender document is made;****1.1 Revised Scope of work:**

Sl. No.	Item Description	TPCODL	TPSODL	Grand Total
1	Power Transformer 3.15 MVA 33/11 KV	1	2	3
2	Power Transformer 5 MVA 33/11 KV	2	0	2
3	Power Transformer 8 MVA 33/11 KV	4	0	4
4	Power Transformer 10 MVA 33/11 KV	0	3	3
5	Power Transformer 12.5/16MVA 33/11 KV	4	3	7
6	Power Transformer 20/25 MVA 33/11 kV	2	0	2

Following changes in Calendar of Events in page no 6 of tender document is made;**1.3 Revised Calendar of Events:**

(b)	Date by which Interested and Eligible Bidder to pay Tender Fee and confirm participation as mentioned in "Procedure to Participate in Tender"	22.05.2024 [15:00 hrs]
(e)	Due date and time of receipt of Bids	30.05.2024 [15:00 hrs]
(f)	Date & Time of opening technical bids	30.05.2024 [15:30 hrs]

Following changes in Price Basis in page no 8 of tender document is made;

3.1 Revised Price Basis: Prices shall remain variable as per IEEMA. PV Clause shall be applicable with ceiling up to 10% on positive side & there is no ceiling on negative side. May 2024 is the Base Month for PVC (IEEMA Circular- April 2024).

CENTRALIZED CONTRACTS GROUP**NIT No.: TPCODL/CCG/24-25/1000000631 Dated. 29.04.2024**

Revised Price Bid:

ANNEXURE-I : Price Schedule

Sl · N o.	Item Description	UoM	Qty	Unit Ex- Work Price (Rs.)	Supervision Charges (avg- 5Days / PT) (Rs.)	GST per Unit (Rs.)	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 3.15 MVA 33/11 KV	EA	3					
2	Power Transformer 5 MVA 33/11 KV	EA	2					
3	Power Transformer 8 MVA 33/11 KV	EA	4					
4	Power Transformer 10 MVA 33/11 KV	EA	3					
5	Power Transformer 12.5/16MVA 33/11 KV	EA	7					
6	Power Transformer 20/25 MVA 33/11 kV	EA	2					

NOTE:

- Column (B & C) are exclusive of GST and Column (D) GST for both (B & C).
- The bids will be evaluated commercially on **the Line item wise Lowest Cost** basis. The evaluation is to be done on line item basis.
- The prices mentioned above shall be on FOR basis for all the TPCODL & TPSODL 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.

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

Yours faithfully,**-sd-****Head-Contracts
CCG, Bhubaneswar**

Format for Pre-Bid Queries

Tender No: TPCODL / CCG / 24-25 / 100000631

Tender Description: Rate Contract - Supply of Power Transformer for Tata Power Odisha Discoms

Bidder :

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
1	2	3	4	5
1	3.1 Price Basis	The prices shall remain FIRM during the entire contract period		
2	13.1(1)Special Conditions of Contract	After finalization of the tender, Rate Contract shall be issued to the successful bidder with a validity period of One Year. Prices shall remain variable as per IEEMA. PV Clause shall be applicable with ceiling up to 10% on Positive side & there is no ceiling on negative side. April 2024 is the Base Month for PVC (IEEMA Circular March 2024). Within the validity of the rate contract and as per requirement of material, release order shall be issued from time to time.	There is ambiguity in these clauses regarding Price Variation & base date. We presume "Prices shall be as per IEEMA PV circular till validity of issued rate contract." shall prevail. We request you to allow bidders to participate the tender with price variation as per IEEMA Price variation formulae, with base month April 2024 for PVC (IEEMA Circular April 2024, circular issued in the month of May24). Furhter, we request to kindly allow OEMs for 50% ceiling on positive side, since contract period is 1 year & considering the volatility of basic material prices.	Prices shall remain variable as per IEEMA. PV Clause shall be applicable with ceiling up to 10% on positive side & there is no ceiling on negative side. May 2024 is the Base Month for PVC (IEEMA Circular- April 2024).
3	Annexure-I, Price Schedule Note(a):	Prices shall remain firm.		
4	13.1. Special Conditions of Contract(6)	Delivery period:Delivery period shall be 120days + 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	Kindly amend the delivery schedule as below considering lead time for planning, procuring and manufacturing activities. Ratings upto 8 MVA: For First RO, Delivery period shall be 150 days from date of RO/ drawing approval/ manufacturing clearance, whichever is later. For subsequent ROs, material shall be delivered within 120 days from date of receipt of release order. For all Ratings 10MVA & above : For First RO, Delivery period shall be 180 days from date of RO/ drawing approval/ manufacturing clearance, whichever is later. For subsequent ROs, material shall be delivered within 150 days from date of receipt of release order. We request you to kindly consider the above and request to amend the delivery timelines accordingly.	As per NIT
5	6.0(6.1).Bid Prices	Bidders need to quote for all items as per the Price schedule attached in Annexure I.	Bidding of line items shall be at discretion of OEM (Not mandatory to bid all Capacity of Transformers). Please confirm	The bids will be evaluated commercially on the Line item wise Lowest Cost basis as calculated in Schedule of Items [Annexure I].
6	13.1(4).Guarantee period (SCC)	Guarantee Period: Guarantee period shall be 66 months from date of supply.		
7	11.Guarantee (Technical specifications)	11.Guarantee: In the event any defect is found by the Purchaser up to a period of 48 months from the date of commissioning or 60 months from the date of last supplies made under the contract, whichever is earlier.	As per document order of preference, the applicable warranty shall be as per Technical specifications (48 months from the date of commissioning or 60 months from the date of last supplies). Please confirm	Guarantee Period: Guarantee period shall be 66 months from date of last supply

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
8	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	As per NIT
9	Clause 13.1	3. Performance Bank Guarantee: PBG of 5% of RC value shall be submitted within 21 days of issuance of RC. PBG submitted, shall be released after completion of applicable guarantee period plus one month. Performance Bank Guarantee for MSME registered in the State of Odisha shall be 25% of the value normally prescribed	Kindly confirm that , PBG of 5% RC shall be submitted to RC issued by respective Discoms	As per NIT
10	GCC(Clause 14.0):	LD: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, TPNODL has the right to levy LD on the entire contract value, subject to a maximum of 10% of the total contract value.	Request to modify as below: LD: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 150% of the original contract time. If full contractual quantity is not delivered within 150% of contract time for delivery, TPCODL has the right to levy LD on the entire contract value, subject to a maximum of 10% of the total contract value.	As per NIT
Technical Specification for 3.15 MVA Power Transformer				
1	Clause 5.7(bushings)	As per the technical specification clause 5.7(bushings) mentioned: All porcelain used in bushings shall be homogeneous, non-porous, uniformly glazed to brown colour and free from blisters, burns and other defects and shall be provided on tank top	Noted. However, we are proceeding with bare bushing termination on both HV and LV side i.e. without cable boxes. Please confirm.	Noted and confirmed
2	Clause 5.7(bushings)	As per the technical specification clause 5.7(bushings) mentioned: The insulation class of high voltage neutral bushing shall be properly coordinated with the insulation class of the neutral of the low voltage winding.	As the offered transformer is with vector group of Dyn11. Only LV side neutral is provided. Please confirm	Noted and confirmed
3	Clause No:5.2 (XIII)Core	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.	Noted and accepted
4	Clause No. - 5.22 (MOG) Sr. No. 17	The unit shall be appropriately marked as "TPCODL/TPNODL/TPSODL/TPWODL" 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
5	Clause.5.1(v)	Necessary cooling ducts shall be provided for heat dissipation from the core so that the anticipated maximum hot spot temperature in the core shall not be injurious to any material used in the core assembly.	In line with earlier supplies made against earlier CCG order, Cooling ducts for Core for this capacity of transformer is not required as hotspot in core is very less than required	Noted and accepted
6	Clause.5.22(vi)	Pressure relief devices (including pressure relief valve) and necessary air equalizer connection between this and the conservator with necessary alarm and trip contacts.	PRD is provided without any air equalizer connection arrangement.	Shall be as per tender specifications

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
7	Clause.5.27(b)	The BA shall procure the following constituent items from the designated vendors as follows: Core : M/s AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel. Transformer Oil : Apar, Savita, Gandhar	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	Thyssenkrupp is accepted For oil make mentioned in tender specifications shall prevail.
8	Clause.5.13(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).	Plain prismatic oil level gauge without float and with clear visibilty of oil level is provided.	Shall be as per tender specifications
9	GTP-10;	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 and accepted
10	Clause.5.11	Oil for first filling, together with 10% extra shall be supplied with each transformer. The oil shall comply in all respects with the provisions of IS 335 & IEC No.60296 latest amendment	Transformer oil is supplied meeting latest version of IS 335 type-II (Specification for New insulating oils).	Noted and accepted
11	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 and accepted
12	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.	Noted and accepted
ENG-EHV-1001 - Technical Specification for 33/11kV 5MVA and 8 MVA Power Transformer				
1	As per specification clause 4.1.40	b) Tap range of OLTC as + 4.686% to -20.606 % 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	Noted and accepted
2	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)	Shall be reviewed during detailed engineering
3	As per clause no. 5.1	5. GENERAL CONSTRUCTION 5.1 GENERAL V. Necessary cooling ducts shall be provided for heat dissipation from the core so that the anticipated maximum hot spot temperature in the core shall not be injurious to any material used in the core assembly	In line with earlier supplies made against earlier CCG order, Cooling ducts for Core for this capacity of transformer is not required as hotspot in core is very less than required	Noted and accepted
4	As per clause no. 5.5	5. GENERAL CONSTRUCTION 5.5 TRANSFORMER TANK: XXVI. Suitable arrangement shall be made for mounting HV and LV lightning arrestors of the transformer	We understand that it is TATA Power's regular practise to provide lightning arrestors at site and supply of LA as well as providing suitable provisions on the offered transformers are not in TTDI scope. Please confirm.	Noted and accepted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
5	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
6	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).	For the offered transformers, we are considering bare bushings on LV & HV side on the top cover. Please confirm.	Noted and confirmed
7	As per clause no. 5.8	5.8 BUSHINGS: XI. 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 copper Busbar of suitable size (60mm X 10mm) for termination of 1 runs of 3C x 400 sqmm 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 Copper Busbar of suitable size	In line with earlier executed order, we are considering Bare bushings on both sides. Please confirm	Noted and confirmed
8	As per clause no. 5.9	5. GENERAL CONSTRUCTION 5.9 RADIATORS VI. The following accessories shall be provided for radiator: d. Top Oil filling Plugs g. Top Oil Filling Pump	Oil filling pump and top oil filling plugs are not considered for the offered transformers (in case of ONAN). Please confirm.	Noted.Radiators should have air release plug on top and drain plug on bottom.
9	As per clause no. 5.10	5. GENERAL CONSTRUCTION 5.10 INTERNAL EARTHING Provision of complete earthing of transformer and associates should be ensure by bidders. Earthing of Main tank, OLTC Conservator, Radiator, NIDS	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 PTRs upto 8 MVA
10	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	Shall be as per tender specifications
11	As per clause no. 5.14	5. GENERAL CONSTRUCTION 5.14 OLTC CONSERVATOR TANK II. Prismatic Oil level indicator with red color float.		Shall be as per tender specifications

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
12	As per clause no. 5.17	5. GENERAL CONSTRUCTION 5.17 PRESSURE RELEASE VALVE 15. Marking: The unit shall be appropriately marked as TPCODL	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 confirmed
13	As per clause no. 5.22	5. GENERAL CONSTRUCTION 5.22 MOG 17. Marking: The unit shall be appropriately marked as TPCODL		Noted and confirmed
14	As per clause no. 5.18	5. GENERAL CONSTRUCTION 5.18 BUCHHOLZ RELAY Type of relay : Magnetic reed switch type Buchholz relays suitable for nominal pipe bore of 50 mm with 2 sets of potential free contacts suitable for 48V.	We shall be proceeding with 50mm pipe for the offered 5MVA & 8MVA jobs. Please confirm.	Noted and accepted
15		4. Nominal pipe bore: 80mm		Noted and accepted
16	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
17	As per clause no. 5.20	5. GENERAL CONSTRUCTION 5.20 WTI In one winding of each phase as described below:	For the offered transformers, we are considering 1 No LV WTI. Please confirm.	Noted and accepted
18	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
19	As per clause no. 5	5. GENERAL CONSTRUCTION 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

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
20	As per clause no. 5.27	5. GENERAL CONSTRUCTION 5.27 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 TPSODL 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	Thyssenkrupp is accepted For oil make mentioned in tender specifications shall prevail.
21	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 and accepted
22	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
23	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.	refer attachment "Sign writing"
24	As per clause no. 7.1	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.	Shall be as per Tender specifications. Routine & acceptance tests shall be finalised during QAP Approval/DDE
25	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 and accepted
26	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 and confirmed
27	GTP-10:	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 and confirmed
28	As per 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.	12 kV class bushing is provided for core and channel earthing purpose.	Noted and confirmed

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
29	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.	Noted and confirmed
30	As per clause no. 5.24	As per Clause No.5.24: NITROGEN INJECTION DRAIN AND STIR SYSTEM	Supply of IDS/NIFPS including providing suitable provisions/valves on the tank/jobs are not required for the offered 5MVA & 8MVA jobs. Please confirm.	NIFPS is not required for PTRs upto 8 MVA
ENG-EHV-1002 - Technical Specification for 33/11kV 10 MVA Power Transformer				
1	As per specification clause 4.1,40	b) Tap range of OLTC as + 4.686% to -20.606 % in steps of 1.56% d) Principal tap position - 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	Noted
2	As per clause 4(4.1)	4) 4.1. GENERAL TECHNICAL REQUIREMENTS: HV and LV Neutral CT (Bushing CT) shall be in supplier's scope (CTR shall be decided in detailed Engineering)	As the offered transformer is with vector group of Dyn11. Only LV side neutral & neutral CT can be provided, if required. However, please share CT ratio for LV neutral CT.	Only LV side neutral CT to be provided. CT ratio for LV Neutral is 600-300/1-1A.
3	As per clause no. 5.1	5. GENERAL CONSTRUCTION 5.1 GENERAL V. Necessary cooling ducts shall be provided for heat dissipation from the core so that the anticipated maximum hot spot temperature in the core shall not be injurious to any material used in the core assembly	In line with earlier supplies made against earlier CCG order, Cooling ducts for Core for this capacity of transformer is not required as hotspot in core is very less than required	Noted
4	As per clause no. 5.4(ii)	5. GENERAL CONSTRUCTION 5.4 INSULATING PAPER AND INSULATING PRESS BOARD: II. Inter layer insulation both for HV and LV windings shall be DPC and compressed pressboard of reputed make (subject to approval of TPSODL).	In case of the winding construction considered for the offered transformers, inter-layer insulation is not required (as per type tested design)	Specification to be complied
5	As per clause no. 5.5(XXVI)	5. GENERAL CONSTRUCTION 5.5 TRANSFORMER TANK: XXVI. Suitable arrangement shall be made for mounting HV and LV lightning arrestors of the transformer.	We understand that it is TATA Power's regular practise to provide lightning arrestors at site and supply of LA as well as providing suitable provisions on the offered transformers are not in TTDI scope. Please confirm.	Noted
6	As per clause no. 5.8(I)	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	Only LV side neutral CT to be provided
7	As per clause no. 5.8(IX)	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).	For the offered transformers, we are considering bare bushings on LV & HV side on the top cover. Please confirm.	Bushing to be considered on the top cover with extended busbar frame for mounting cable arrangement.

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8	As per clause no. 5.8(XI)	5.8 BUSHINGS: XI. 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 copper Busbar of suitable size (60mm X 10mm) for termination of 1 runs of 3C x 400 sqmm 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 Copper Busbar of suitable size	In line with earlier executed order, we are considering Bare bushings on both sides. Please confirm	Bare bushing to be consider on both side
9	As per clause no. 5.9(VI)	5. GENERAL CONSTRUCTION 5.9 RADIATORS VI. The following accessories shall be provided for radiator: d. Top Oil filling Plugs g. Top Oil Filling Pump	Oil filling pump and top oil filling plugs are not considered for the offered transformers (in case of ONAN). Please confirm.	Noted
10	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	Specification to be complied
11	As per clause no. 5.14	5. GENERAL CONSTRUCTION 5.14 OLTC CONSERVATOR TANK II. Prismatic Oil level indicator with red color float.		
12	As per clause no. 5.17	5. GENERAL CONSTRUCTION 5.17 PRESSURE RELEASE VALVE 15. Marking: The unit shall be appropriately marked as TPCODL	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
13	As per clause no. 5.22	5. GENERAL CONSTRUCTION 5.22 MOG 17. Marking: The unit shall be appropriately marked as TPCODL		
14	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.	Specification to be complied

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
15	As per clause no. 5.20	5. GENERAL CONSTRUCTION 5.20 WTI In one winding of each phase as described below:	For the offered transformers, we are considering 1No LV WTI & 1 HV WTI only. Please confirm.	Noted
16	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.	Specification to be complied (MOG shall be provided with disconnecting
17	As per clause no. 5.26	5. GENERAL CONSTRUCTION 5.26 ANTI RUSTING CORROSION TREATMENT IV. 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. The following shall be the check points for the metal spray of Radiators:- a) Metal Spray	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.	Paint Shade be 631 as per IS 5
18	As per clause no. 5.27	5. GENERAL CONSTRUCTION 5.27 MAKE OF MAJOR COMPONENTS & RAW MATERIALS b) Core: M/S AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel. d) Transformer Oil (Mineral oil): Savita, Apar, Gandhar	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	Specification to be complied
19	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.	Name Plate as per standard to be provide
20	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.	Kinldy 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.	Specification to be complied
21	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
22	As per clause no. 12	12. PACKING AND TRANSPORT: V. A shock recorder also shall be provided during transport. Data of the same shall be shared during execution	In line with rarlter supplies, shock/impact recorders are not required for the offered transformers	Specification to be complied
23	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	Specification to be complied
24	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.	Specification to be complied

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
25	As per clause no.19	19. SCHEDULE- "A" GUARANTEED TECHNICAL PARTICULARS: 10.0 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
ENG-EHV-1002 - Technical Specification for 33/11kV 12.5/16 MVA Power Transformer				
1	As per specification clause 4.1.40	b) Tap range of OLTC as + 4.686% to -20.606 % in steps of 1.56% d) Principal tap position - 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	Noted and confirmed
2	As per clause 4(4.1)	4) 4.1. GENERAL TECHNICAL REQUIREMENTS: HV and LV Neutral CT (Bushing CT) shall be in supplier's scope (CTR shall be decided in detailed Engineering)	As the offered transformer is with vector group of Dyn11. Only LV side neutral & neutral CT can be provided, if required. However, please share CT ratio for LV neutral CT.	CTR shall be decided in detailed Engineering Accuracy: PS knee point voltage > 500V Imag at V _{k/s} < 100mA ISD <= 5 R _{ct} < 6 ohm
3	As per clause no. 5.1	5. GENERAL CONSTRUCTION 5.1 GENERAL V. Necessary cooling ducts shall be provided for heat dissipation from the core so that the anticipated maximum hot spot temperature in the core shall not be injurious to any material used in the core assembly	In line with earlier supplies made against earlier CCG order, Cooling ducts for Core for this capacity of transformer is not required as hotspot in core is very less than required	Noted and accepted
4	As per clause no. 5.4(ii)	5. GENERAL CONSTRUCTION 5.4 INSULATING PAPER AND INSULATING PRESS BOARD: II. Inter layer insulation both for HV and LV windings shall be DPC and compressed pressboard of reputed make (subject to approval of TPSODL).	In case of the winding construction considered for the offered transformers, inter-layer insulation is not required (as per type tested design)	Shall be reviewed during detailed engineering
5	As per clause no. 5.5(XXVI)	5. GENERAL CONSTRUCTION 5.5 TRANSFORMER TANK: XXVI. Suitable arrangement shall be made for mounting HV and LV lightning arrestors of the transformer.	We understand that it is TATA Power's regular practise to provide lightning arrestors at site and supply of LA as well as providing suitable provisions on the offered transformers are not in TTDI scope. Please confirm.	Noted and accepted
6	As per clause no. 5.8(I)	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
7	As per clause no. 5.8(IX)	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).	For the offered transformers, we are considering bare bushings on LV & HV side on the top cover. Please confirm.	Noted and accepted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
8	As per clause no. 5.8(XI)	5.8 BUSHINGS: XI. 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 copper Busbar of suitable size (60mm X 10mm) for termination of 1 runs of 3C x 400 sqmm 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 Copper Busbar of suitable size	In line with earlier executed order, we are considering Bare bushings on both sides. Please confirm	Noted and confirmed
9	As per clause no. 5.9(VI)	5. GENERAL CONSTRUCTION 5.9 RADIATORS VI. The following accessories shall be provided for radiator: d. Top Oil filling Plugs g. Top Oil Filling Pump	Oil filling pump and top oil filling plugs are not considered for the offered transformers (in case of ONAN/ONAF). Please confirm.	Noted.Radiators should have air release plug on top and drain plug on bottom.
10	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	Shall be as per tendered specifications
11	As per clause no. 5.14	5. GENERAL CONSTRUCTION 5.14 OLTC CONSERVATOR TANK II. Prismatic Oil level indicator with red color float.		
12	As per clause no. 5.17	5. GENERAL CONSTRUCTION 5.17 PRESSURE RELEASE VALVE 15. Marking: The unit shall be appropriately marked as TPCODL/TPSODL/TPWODL/TPNODL	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
13	As per clause no. 5.22	5. GENERAL CONSTRUCTION 5.22 MOG 17. Marking: The unit shall be appropriately marked as TPCODL/TPSODL/TPWODL/TPNODL		
14	As per clause no. 5.19	5. GENERAL CONSTRUCTION 5.19 OTI	Instead we are providing OTI (inside the marshalling box), in line with earlier supplies. Please confirm.	Noted and accepted
15	As per clause no. 5.20	5. GENERAL CONSTRUCTION 5.20 WTI In one winding of each phase as described below:	For the offered transformers, we are considering 1No LV WTI & 1 HV WTI only. Please confirm.	Noted and confirmed
16	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

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
17	As per clause no. 5.26	5. GENERAL CONSTRUCTION 5.26 ANTI RUSTING CORROSION TREATMENT IV. 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. The following shall be the check points for the metal spray of Radiators:- a) Metal Spray	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.	Noted and accepted
18	As per clause no. 5.27	5. GENERAL CONSTRUCTION 5.27 MAKE OF MAJOR COMPONENTS & RAW MATERIALS b) Core: M/S AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel. d) Transformer Oil (Mineral oil): Savita, Apar, Gandhar	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	Thyssenkrupp is accepted For oil make mentioned in tender specifications shall prevail.
19	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.	refer attachment "Sign writing"
20	As per clause no. 6(ff)	6. NAME PLATE AND MARKING RATING PLATE f) 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 and accepted
21	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 and accepted
22	As per clause no. 12	12. PACKING AND TRANSPORT: V. A shock recorder also shall be provided during transport. Data of the same shall be shared during execution	In line with earlier supplies, shock/impact recorders are not required for the offered transformers	Noted and accepted
23	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 and accepted
24	As per clause no.19	19. SCHEDULE- "A" GUARANTEED TECHNICAL PARTICULARS: 10.0 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 and accepted
25	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.	Noted and accepted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
1	As per specification clause 4.1.40	Tap range of OLTC as + 4.686% to -20.606 % in steps of 1.56%	a) 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% b) the principal tap position will be on 4th instead of 5th position Please confirm.	Noted and accepted
2	As per clause no. 5.1	5. GENERAL CONSTRUCTION 5.1 GENERAL V. Necessary cooling ducts shall be provided for heat dissipation from the core so that the anticipated maximum hot spot temperature in the core shall not be injurious to any material used in the core assembly	In line with earlier supplies made against earlier CCG order, Cooling ducts for Core for this capacity of transformer is not required as hotspot in core is very less than required	Noted and accepted
3	As per clause no. 5.5(XXVI)	5. GENERAL CONSTRUCTION 5.5 TRANSFORMER TANK: XXVI. Suitable arrangement shall be made for mounting HV and LV lightning arrestors of the transformer.	We understand that it is TATA Power's regular practise to provide lightning arrestors at site and supply of LA as well as providing suitable provisions on the offered transformers are not in TTDI scope. Please confirm	Noted and accepted
4	As per clause no. 5.8(I)	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
5	As per clause no. 5.8(IX)	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).	For the offered transformers, we are considering bare bushings on LV & HV side on the top cover. Please confirm.	Noted and accepted
6	As per clause no. 5.8(XI)	5.8 BUSHINGS: XI. 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 copper Busbar of suitable size (60mm X 10mm) for termination of 1 runs of 3C x 400 sqmm 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 Copper Busbar of suitable size	In line with earlier executed order, we are considering Bare bushings on both sides. Please confirm	Noted and accepted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
7	As per clause no. 5.9(VI)	5. GENERAL CONSTRUCTION 5.9 RADIATORS VI. The following accessories shall be provided for radiator: d. Top Oil filling Plugs g. Top Oil Filling Pump	Oil filling pump and top oil filling plugs are not considered for the offered transformers (in case of ONAN). Please confirm.	Noted.Radiators should have air release plug on top and drain plug on bottom.
8	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	Shall be as per tendered specifications
9	As per clause no. 5.14	5. GENERAL CONSTRUCTION 5.14 OLTC CONSERVATOR TANK II. Prismatic Oil level indicator with red color float.		
10	As per clause no. 5.17	5. GENERAL CONSTRUCTION 5.17 PRESSURE RELEASE VALVE 15. Marking: The unit shall be appropriately marked as TPCODL/TPSODL/TPWODL/TPNODL	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 confirmed
11	As per clause no. 5.22	5. GENERAL CONSTRUCTION 5.22 MOG 17. Marking: The unit shall be appropriately marked as TPCODL/TPSODL/TPWODL/TPNODL		
12	As per clause no. 5.19	5. GENERAL CONSTRUCTION 5.19 OTI	Instead we are providing OTI (inside the marshalling box), in line with earlier supplies. Please confirm.	Noted and accepted
13	As per clause no. 5.20	5. GENERAL CONSTRUCTION 5.20 WTI	For the offered transformers, we are considering 1No LV WTI. Please confirm.	Please consider 1No LV WTI & 1 HV WTI.
15	As per clause no. 5.26	5. GENERAL CONSTRUCTION 5.26 ANTI RUSTING CORROSION TREATMENT	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	Noted and confirmed
17	As per clause no. 6	6. NAME PLATE AND MARKING RATING PLATE QR code shall be provided on name plate. QR code	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 confirmed
19	As per clause no. 6(ff)	6. NAME PLATE AND MARKING RATING PLATE ff) Tan delta value of insulating oil and Kraft paper of	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	Noted and confirmed
21	As per Clause no.7.3(Viii)	Oil: All standard tests in accordance with IS: 335 shall be carried out on	Transformer oil is supplied meeting latest version of IS 335(specification for New insulating oils).	Noted and confirmed
23	As per clause no.19	19. SCHEDULE- "A" GUARANTEED TECHNICAL PARTICULARS:	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 and confirmed
Technical				
2	Clause.No:5.3.h.vi	As Per Clause No.:5.3.h.vi Tapping shall not be brought out from inside the coil or	Kindly amend this clause as per below "Tapping's can be taken from anywhere in coil but it shall be arranged in a way to get	Shall be as per tender specifications
4	Clause.No:4.35	As per clause no:4.35: Losses: The losses shall not exceed the value give	We wish to bring to your kind notice that, all other boards of tata power i.e TPSODL,TPNODL&TPWODL and all other Electricity Boards are procuring with the	Shall be as per tendered specifications. However, lower losses than the tendered specifications is acceptable.
6	Clause.No:4	As per Clause No.4.15: Percentage impedance voltage on normal tap and MVA	We wish to bring to your kind notice that, against this tolerance shall be as per IS 2026 Part-1, Clause 9, Table No.1.	Shall be as per tendered specifications
8	Specification	As per Specification of 5 & 8 MVA Clause 5.27: MAKE OF MAJOR COMPONENTS & RAW MATERIALS b) Core -- M/S AK Steels, POSCO, Kawasaki/JFE, Nippon Steel.	We wish to bring to your kind notice that, we considering same core makes of 5 & 8MVA for 3.15MVA also along with that kindly add the below mentioned vendors also 1.Baoshan Iron & Steel Co, China 2.Thyssenkrupp Electrical Steel India Pvt. Ltd (TKES), Nasik 3.NOVOLPESTSK STEEL (NLMK) RUSSIA 4.VIZ STEEL LTD, RUSSIA	Thyssenkrupp is accepted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
10	As per Clause No.7.2	12. Test to verify IP55 of Marshalling and Cable Boxes.	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.	Noted and accepted
12	As per clause no:7.2	As per Clause No.7.2. TYPE TEST: 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.	Noted and accepted
Specification for 5MVA & 8MVA power transformer				
1	ENG-EHV-1001 / Clause.No:4.1(30) &Clause.No:5.3(v)	Clause.No:4.1(30) Maximum current density for HV and LV winding for rated current given as -2.4 Amps/Sq.mm Clause.No:5.3(v) The current density of coil shall not exceed 2.4 Amps/ sq mm at min tap of respective PTR 's higher rating	Against this we will follow the Max. current density at normal tap 2.4Amps/Sq.mm as per Clause No 4.1(30). Kindly Confirm?	The current density of coil shall not exceed 2.4 Amps/ sq mm at min tap of respective PTR 's higher rating
2	ENG-EHV-1001 / Clause.No:4.1(34)	Clause.No:4.1(34) For 5MVA No Load losses : 3.6kW Max Load Losses : 20kW Max. For 8MVA No Load losses : 4.2kW Max Load Losses : 32kW Max.	We wish to bring to your kind notice that, all other boards of tata power i.e TPWODL,TPNODL & TPCODL and all other Electricity Boards procure with the below Losses for 5MVA and 8MVA. So Kindly Amend this as below. For 5MVA No Load losses : 4kW Max Load Losses : 23kW Max. For 8MVA No Load losses : 5.5kW Max Load Losses : 40kW Max. Kindly Confirm.	Shall be as per Tendered Specifications
3	ENG-ELC-1001 / Clause.No:4.1(40(b)) / Page.No: 7	Clause.No:4.40.b Tap range given as : + 4.686% to -20.606% in steps of 1.56% & d) Principal Tap position - 5th	Against this we will provide the tap range +4.686% to -20.28% in step of 1.56% to achieve 16 steps/17 position as rated voltage with step percentage of 1.56%. Kindly confirm?	Noted and accepted
4	ENG-EHV-1001 / Clause.No:4.2(VII) &5.15(XI)(XIII)	Clause.No:4.2(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 and AVR are not required. Shall be as per Tender Specifications

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
5	ENG-EHV-1001 / Clause.No:5.6,5.7 & 5.26	<p>As per Painting:5.6 vi. The paint shade used shall be shade 631 as per IS: 5.</p> <p>As per Painting:5.6 ii. Before shipment all steel work not under oil shall be painted with a primary coat of anti-corrosive paint of durable nature and two coats of battleship grey paint (Shade 631 of IS: 5).</p> <p>As per Surface preparation and painting: 5.7 iii.The two coats shall be of oil and weather-resistant nature with final coat as flossy and non-fading paint of shade 631 as per IS 5 or RAL 7032.</p> <p>As Per Clause No.5.26: Anti Rusting Corrosion Treatment vii. The Paint shade used shall be shade 631 as per IS 5.</p>	We wish to bring to your kind notice that, these clauses are contradicting to each other. Please confirm the Paint shade for Transformer.	Shade 631 of IS 5
6	ENG-EHV-1001 / Clause.No: 5.2(xiii)	<p>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.</p>	We wish to bring to your kind notice that, the grounding shall be with 1.1 KV class bushing. Kindly confirm?	Shall be as per Tendered Specifications
7	ENG-EHV-1001 / Clause.No:7.2.	<p>As per clause no: 7.2. Special Test e) Long duration induced AC voltage test (ACLD) transformer winding $72.5 < U_m \leq 170kV$.</p>	We wish to bring to your kind notice that, HV and LV voltage doesn't fall in this category. So it is not applicable.	Noted and accepted
8	ENG-EHV-1001 / Clause.No:5.24	<p>As per Clause No.5.24: NITROGEN INJECTION DRAIN AND STIR SYSTEM</p>	We presume that supply of NIFPS is not in our scope. Kindly confirm the same.	Supply and installation is in scope of Bidder
9	ENG-EHV-1001 / Clause.No:5.27	<p>As per Clause No.5.27: MAKE OF MAJOR COMPONENTS & RAW MATERIALS b) Core -- M/S AK Steels, POSCO, Kawasaki/JFE, Nippon Steel.</p>	We wish to bring to your kind notice that, kindly add the below mentioned vendors also 1.Baoshan Iron & Steel Co, China 2.Thyssenkrupp Electrical Steel India Pvt. Ltd (TKES), Nasik 3.NOVOLPESTSK STEEL (NLMK) RUSSIA 4.VIZ STEEL LTD, RUSSIA Kindly Confirm.	Thyssenkrupp is accepted
10	ENG-EHV-1001 / As per clause: 10	<p>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 TPCODL/TPNODL/TPWODL/TPSODL.</p>	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.	Shall be as per Tender specifications
11	ENG-EHV-1001 / As per clause:5.9.vi.g	<p>As Per Clause No.5.9.V.g Top Oil Filling Pump</p>	Type of cooling is given as ONAN, it means that heat dissipation will be done by Oil Natural and Air Natural. So oil filling pump is not required. Please confirm?	Oil filling pump Not required

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response																		
12	ENG-EHV-1001 / As per clause:5.20.	<p>As Per Clause No.5.20.WTI: In one winding of each phase & WTI For LV side</p> <table border="1" data-bbox="609 316 1330 507"> <thead> <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 Vk/2</th> <th>ISF</th> <th>Rct</th> </tr> </thead> <tbody> <tr> <td>I</td> <td>WTI</td> <td>262/1A (5 MVA) 420/1A (8MVA)</td> <td>0.5</td> <td>30 VA</td> <td>-</td> <td>-</td> <td><10</td> <td>-</td> </tr> </tbody> </table>	Core	Purpose	CTR for 5 MVA & 8 MVA	Class	Burden	Knee Point Volt	Imag at Vk/2	ISF	Rct	I	WTI	262/1A (5 MVA) 420/1A (8MVA)	0.5	30 VA	-	-	<10	-	<p>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 shall be 0.5 and Burden of CT shall be 30VA. Kindly Confirm.</p>	CT burden shall be 30 VA, Class 0.5
Core	Purpose	CTR for 5 MVA & 8 MVA	Class	Burden	Knee Point Volt	Imag at Vk/2	ISF	Rct														
I	WTI	262/1A (5 MVA) 420/1A (8MVA)	0.5	30 VA	-	-	<10	-														
13	ENG-EHV-1001 /Clause No.5.20.	<p>As per Clause No.5.20. NOTE: I. Equipment for remote winding and oil temperature Indicators including these to be installed in the TPCODL 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.</p>	<p>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.</p>	Shall be as per Tender Specifications																		
14	ENG-EHV-1001 /Clause No.5.23.	<p>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 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</p>	<p>Against this except MOG and SPR we will provide only 1No contact only due to no availability of 2No contacts for devices. Kindly Confirm.</p>	Shall be as per tender specifications.																		

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
15	ENG-EHV-1001 / As per clause:8	As per Clause No.8: 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 any) not carried out, same shall be carried out without any cost implication to the TPCODL/TPNODL/TPWODL/TPSODL.	We wish to bring to your kind notice that, we will provide similar type test reports at the time of bidding and offered design type test reports will be provided before commencement of supplies. Kindly accept.	Type test reports of similar design(from CPRI/ERDA) & same voltage levels shall be furnished during Tender evaluation stage failing which bid shall be liable for rejection.
16	ENG-EHV-1001 / 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. So Kindly Confirm?	Shall be as per Tender specifications
17	ENG-EHV-1001 / As per clause:4,5,2	As Per Clause No.4.25. General Technical parameters: Core Material - CRGO Silicon Steel, M3 or better & As per Clause No.5.2.CORE: II. The grade of core shall be M3 or better.	Against this we will provide the CRGO with M4 grade 0.27mm thickness or better. Kindly Confirm.	Shall be as per tender specifications
18	ENG-EHV-1001 / 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.	Noted and Confirmed
18	ENG-EHV-1001 / 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.	Please consider Bare bushings on both sides with terminal connectors.
19	ENG-EHV-1001 / As per clause:5.11	As per Clause NO.5.11. OIL: I. The oil shall comply in all respects with the provisions of IS 335 & IEC 60296 latest amendent.	We wish to bring to your kind notice that, against this we will provide Uninhibited type mineral oil as per IS 335 & IEC 60296. Kindly Confirm.	Shall be as per Tender specifications
20	ENG-EHV-1001 / 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.	Shall be as per Tender Specifications

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
21	ENG-EHV-1001 / 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.	Not accepted. Shall be as per tender specifications
22	ENG-EHV-1001 / 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.	Shall be finalised during detailed engineering
23	ENG-EHV-1001 / As per clause:5.23	As per Clause No.5.23. Marshalling Box. 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.	Shall be as per tender specifications
24	ENG-EHV-1001 / As per clause:7.2	As per Clause No.7.2. TYPE TEST: 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.	We require potential free contact from the protection device itself on to the TBs. Shall be as per Tender specifications.
25	ENG-EHV-1001 / As per clause:7.2	As per Clause No.7.2. TYPE TEST: 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.	Not accepted. Shall be as per tender specifications
26	ENG-EHV-1001 / 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.	Noted and accepted
27	ENG-EHV-1001 / 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 sizes should be hot dip galvanized. To achieve a good quality corrosion free painting, bidders 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 galvanized type Nut bolt. Which is widely used across transformer industries. We request you to please accept the same.	Shall be as per Tender Specifications
28	ENG-EHV-1001 / 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 be provided with facility for padlocking in either open or closed position. All screwed valves shall be furnished with pipe plugs for protection. Padlocks with duplicate keys shall be supplied along with the valves.	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.	Shall be as per tender specifications.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
29	ENG-EHV-1001 / 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 1-16K 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.	Shall be as per tender specifications.
30	ENG-EHV-1001 / As per clause:5.15	As per Clause No.5.15.ONLOADTAPCHANGER-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.	Shall be as per Tender Specifications
Specification for 10MVA power transformer				
1	ENG-EHV-010- Clause No.4.	As per Clause No.4. General Technical Requirements: 19. 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. So Kindly Confirm?	
2	ENG-EHV-010- Clause No.4&5.3	As per Clause No.4. General Technical Requirements: 30.Maximum current density for HV and LV winding for rated current given as -2.4 Amps/Sq.mm Clause.No:5.3(v) The current density of coil shall not exceed 2.4 Amps/ sq mm at min tap of respective PTR's higher rating	Against this we will follow the Max. current density at normal tap 2.4Amps/Sq.mm as per Clause No.4.30 Kindly Confirm?	
3	ENG-EHV-010- Clause No.4.	Clause.No:4.40.b Tap range given as : + 4.686% to -20.606% in steps of 1.56% & d) Principal Tap position - 5th	Against this we will provide the tap range +4.686% to -20.28% in step of 1.56% to achieve 16 steps/17 position as rated voltage with step percentage of 1.56%. Kindly confirm?	
4	ENG-EHV-010- Clause No.4.	As per Clause No.4. General Technical Requirement: HV and LV Neutral CT (Bushing CT) shall be in supplier's scope (CTR shall be decided in detailed Engineering)	We wish to bring to your kind notice that, HV connection is delta. So, their this no need of HV neutral CT. Kindly Cofirm.	

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
5	ENG-EHV-010/ Clause.No:5.6,5.7 & 5.26	<p>As per Painting:5.6 vi. The paint shade used shall be shade 631 as per IS: 5.</p> <p>As per Painting:5.6 ii. Before shipment all steel work not under oil shall be painted with a primary coat of anti-corrosive paint of durable nature and two coats of battleship grey paint (Shade 631 of IS: 5).</p> <p>As per Surface preparation and painting: 5.7 iii.The two coats shall be of oil and weather-resistant nature with final coat as flossy and non-fading paint of shade 631 as per IS 5 or RAL 7032.</p> <p>As Per Clause No.5.26: Anti Rusting Corrosion Treatment vii. The Paint shade used shall be shade 631 as per IS 5.</p>	We wish to bring to your kind notice that, these clauses are contradicting to each other. Please confirm the Paint shade for Transformer.	
6	ENG-EHV-010 / Clause.No:5.2	<p>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.</p>	We wish to bring to your kind notice that, the grounding shall be with 1.1 KV class bushing. Kindly confirm?	
7	ENG-EHV-010 / Clause.No:7.2.	<p>As per clause no: 7.2. Special Test e) Long duration induced AC voltage test (ACLD) transformer winding $72.5 < U_m \leq 170kV$.</p>	We wish to bring to your kind notice that, HV and LV voltage doesn't fall in this category. So it is not applicable.	
8	ENG-EHV-1001 / Clause.No:5.24	<p>As per Clause No.5.24: NITROGEN INJECTION DRAIN AND STIR SYSTEM</p>	We presume that supply of NIFPS is not in our scope. Kindly confirm the same.	
9	ENG-EHV-010 / Clause.No:5.27	<p>As per Clause No.5.27: MAKE OF MAJOR COMPONENTS & RAW MATERIALS b) Core -- M/S AK Steels, POSCO, Kawasaki/JFE, Nippon Steel.</p>	<p>We wish to bring to your kind notice that, kindly add the below mentioned vendors also 1.Baoshan Iron & Steel Co, China 2.Thyssenkrupp Electrical Steel India Pvt. Ltd (TKES), Nasik 3.NOVOLPESTSK STEEL (NLMK) RUSSIA 4.VIZ STEEL LTD, RUSSIA</p> <p>Kindly Confirm.</p>	
10	ENG-EHV-010 / Clause.No:10	<p>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 TPSODL.</p>	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.	
11	ENG-EHV-010 / As per clausue:5.9.vi.g	<p>As Per Clause No.5.9.VI.g Top Oil Filling Pump</p>	<p>Type of cooling is given as ONAN, it means that heat dissipation will be done by Oil Natural and Air Natural. So oil filling pump is not required. Please confirm?</p>	

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response										
12	ENG-EHV-010 / As per clause:5.20.	<p>As Per Clause No.5.20.WTI: In one winding of each phase & WTI For LV side & HV Side</p> <table border="1" data-bbox="488 331 1198 392"> <tr> <td>WTI CT for LV Side:</td> <td>CTR: 525/1</td> <td>Class:0.5</td> <td>Burden: 30 VA</td> <td>ISF<10</td> </tr> <tr> <td>WTI CT for HV Side:</td> <td>CTR: 280/1</td> <td>Class:0.5</td> <td>Burden: 30 VA</td> <td>ISF<10</td> </tr> </table>	WTI CT for LV Side:	CTR: 525/1	Class:0.5	Burden: 30 VA	ISF<10	WTI CT for HV Side:	CTR: 280/1	Class:0.5	Burden: 30 VA	ISF<10	<p>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.</p>	
WTI CT for LV Side:	CTR: 525/1	Class:0.5	Burden: 30 VA	ISF<10										
WTI CT for HV Side:	CTR: 280/1	Class:0.5	Burden: 30 VA	ISF<10										
13	ENG-EHV-010 /Clause No.5.20.	<p>As per Clause No.5.20. NOTE: I. Equipment for remote winding and oil temperature Indicators including these to be installed in the TPCODL 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.</p>	<p>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.</p>											
14	ENG-EHV-010 /Clause No.5.23.	<p>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 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</p>	<p>Against this except MOG and SPR we will provide only 1No contact only due to no availability of 2No contacts for devices. Kindly Confirm.</p>											

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
15	ENG-EHV-010 / As per clause:8	As per Clause No.8: 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 any) not carried out, same shall be carried out without any cost implication to the TPCODL/TPNODL/TPWODL/TPSODL.	We wish to bring to your kind notice that, we will provide similar type test reports at the time of bidding and offered design type test reports will be provided before commencement of supplies. Kindly accept.	
16	ENG-EHV-010 / As per clause:4,5,2	As Per Clause No.4.25. General Technical parameters: Core Material - CRGO Silicon Steel, M3 or better & As per Clause No.5.2.CORE: II. The grade of core shall be M3 or better.	Against this we will provide the CRGO with M4 grade 0.27mm thickness or better. Kindly Confirm.	
17	ENG-EHV-010 / 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.	
18	ENG-EHV-010 / 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.	
19	ENG-EHV-010 / As per clause:5.11	As per Clause NO.5.11. OIL: I. The oil shall comply in all respects with the provisions of IS 335 & IEC 60296 latest amendent.	We wish to bring to your kind notice that, against this we will provide Uninhibited type mineral oil as per IS 335 & IEC 60296. Kindly Confirm.	
20	ENG-EHV-1001 / 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.	
21	ENG-EHV-010 / 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 mian tank conservator. Kindly Confirm.	
22	ENG-EHV-1001 / 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.	

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
23	ENG-EHV-010 / As per clause:5.23	As per Clause No.5.23. Marshalling Box. 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.	
24	ENG-EHV-1001 / As per clause:7.2	As per Clause No.7.2. TYPE TEST: 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.	
25	ENG-EHV-1001 / As per clause:7.2	As per Clause No.7.2. TYPE TEST: 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.	
26	ENG-EHV-1001 / 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.	
27	ENG-EHV-1001 / As per clause:5.1	Clause.No:5.5.1GENERAL CONSTRUCTION: (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, bidders 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.	
28	ENG-EHV-1001 / 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 be provided with facility for padlocking in either open or closed position. All screwed valves shall be furnished with pipe plugs for protection. Padlocks with duplicate keys shall be supplied along with the valves.	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.	
29	ENG-EHV-1001 / As per clause:5.15	As per Clause No.5.15. ONLOAD TAP CHANGER-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 marshalling 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.	
30	ENG-EHV-1001 / 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 set 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.	

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
31	Clause No.12.0	As per Clause No.12.0. 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. Please confirm.	
32	Clause No.7.2	As per 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.	
SPECIFICATION FOR 33/11 KV -12.5/16MVA Power Transformers				
1	Clause.No:4(15) & 34(b) & Clause.No:5.3(V)	Clause.No:4(15) Percentage impedance voltage on normal tap at Base MVA (Tolerance shall be as per IS 2026 Part- 1,Clause 9, Table No.1) Clause.No:4(34)(b) Load losses at 75°C KW given as - 58kW (at 12.5 MVA) Clause.No:5.3.(V). The current density of coil shall not exceed 2.4 Amps/ sq mm at min tap of respective PTR's higher rating.	Against this Kindly confirm the Base Rating (Reference) for design consideration of all electrical parametres(Current Density, Losses and Impedance) i.e at 12.5MVA or 16MVA. Kindly confirm?	Current Density shall be 2.4 at Min tap @ 16 MVA Losses at 12.5 MVA Base. Impedance at 12.5 MVA Base
2	Clause.No:4(30) & 5.3(V)	Clause.No:4(30) Maximum current density for HV and LV winding for rated current given as - 2.4 Amps/Sq.mm Winding-(V). The current density of coil shall not exceed 2.4 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 2.4 Amps/ sq mm at min tap of respective PTR's higher rating.
3	Clause.No:4(30) & 5.3(V)	Clause.No:4.40.b Tap range given as : + 4.686% to -20.606% in steps of 1.56% & d) Principal Tap position - 5th	Against this we will provide the tap range +4.686% to -20.28% in step of 1.56% to achieve 16 steps/17 position as rated voltage with step percentage of 1.56%. As per the Tap range mentioned in specification then principal tap position will be 4th tap. Kindly confirm?	Noted and accepted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
4	Clause.No:4.40,4.2 & 5.15	<p>As per Clause.4.40. O) Remote Tap Changer Control Indicator -----No P) SCADA and TMU compatibility ----- Yes</p> <p>As per Clause No.4.2.PERFORMANCE-(VII): Transformer shall be compatible for Operation along with Tap Changer Control panel orTransformer Monitoring Unit (TMU). Supply of TMU is not in scope of Bidder.</p> <p>ON LOAD TAP CHANGER-(XI) OLTC shall be able to do automatic / parallel operations through Transformer Monitoring Unit (TMU).</p>	<p>We wish to bring to your kind notice that, these clauses are contradicting to each other.</p> <p>Please note that Transformer Monitoring Unit (TMU) is not in SSE Scope of supply.</p> <p>If required, we will provide the RTCC,Through this OLTC shall be able to do automatic / parallel operations.</p> <p>Kindly confirm ?</p>	<p>RTCC panel is not required. TMU is not in scope of supply. However, SCADA & TMU compatibility should be provided</p>
5	Clause.No:4.0	<p>Clause.No:4 HV and LV Neutral CT (Bushing CT) shall be in supplier's scope (CTR shall be decided in detailed Engineering)</p>	<p>We wish to bring your notice that, HV Neutral CT is not applicable Since it is delta connection. Kindly provide the NCT ratio for LV.</p>	<p>NCTR shall be provided during detailed engineering</p>
6	Clause.No:5.3	<p>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.</p>	<p>Against this we will proceed tolerance on Impedance as per IS 2026-Part-1. Kindly confirm?</p>	<p>Shall be as per tender specifications</p>
7	Clause.No:5.7,5.9 & 5.6	<p>Clause NO.5.7.SURFACE PREPARATION AND PAINTING-(III) The two coats shall be of oil and weather-resistant nature with final coat as flossy and nonfading paint of shade 631 as per IS 5 or RAL 7032.</p> <p>Clause.No: 5.9(IV) The color shade for the radiator shall be shade 631 as per IS: 5.</p> <p>Clause No.5.6. II. Before shipment all steelwork not under oil shall be painted with a primary coat of anti-corrosive paint of durable nature and two coats of battleship grey paint (Shade 631 of IS: 5).</p>	<p>We wish to bring to your kind notice that, these clauses are contradicting to each other. Please confirm the Paint shade for both Transformer and Radiators.</p>	<p>Shade 631 of IS 5</p>

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response										
8	Clause No.5.27	<p>As per Clause No.5.27. MAKE OF MAJOR COMPONENTS & RAW MATERIALS b) Core -- M/S AK Steels, POSCO, Kawasaki/JFE, Nippon Steel.</p>	<p>We wish to bring to your kind notice that, kindly add the below mentioned vendors also: 1.Baoshan Iron & Steel Co, China 2.Thyssenkrupp Electrical Steel India Pvt. Ltd (TKES), Nasik 3.NOVOLIPESK STEEL (NLMK) RUSSIA 4.VIZ STEEL LTD, RUSSIA</p> <p>Kindly Confirm.</p>	Thyssenkrupp is accepted										
9	Clasue No.5.11	<p>OIL: Oil for first filling, together with 10% extra shall be supplied with each transformer. The oil shall comply in all respects with the provisions of IS 335 & IEC No.60296 latest amendment.</p> <p>ESTER OIL: In case of Natural Ester oil or Synthetic Ester Oil</p>	<p>We wish to bring to your notice that both the clauses are condtraticing with each other we will provide uninhibited Mineral Oil (As per IS:335 & IEC:60296)</p> <p>Kindly Confirm.</p>	Noted and accepted										
10	Clasue No.5.8	<p>As per Clause No.5.8. BUSHINGS-(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)</p>	<p>We wish to bring to your kind notice that, Against this kindly confirm the Termination arrangement i.e with Option -1 Or option-2.</p>	Please consider Bare bushings on both sides with terminal connectors.										
11	Clasue No.5.5 & 5.12	<p>As Per Clause No.5.5. TRANSFORMER TANK-(IX) To ensure oil tightness, recessed neoprene or equivalent gaskets shall be used..</p> <p>As per Clasue No.5.12.GASKET-J All bolted connection to the tank shall be fitted with suitable oil-tight gaskets which shall give satisfactory service under the operating conditions. Gaskets shall be of rubber/Nitrate</p>	<p>We wish to bring to your kind notice that, These clauses are contradicting each other. Against this we will proceed with gaskets of rubber bonded cork or Neoprene rubber bonded cork or equivalent shall be used which shall give satisfactory service under the operating conditions.</p> <p>Kindly confirm?</p>	NRBC cork is accepted										
12	Clasue No.4.0 & 5.20	<p>As per Clause No.5.20.WTI: In one winding of each phase. & As per Clause No.4.</p> <table border="1" data-bbox="488 1222 1263 1358"> <tbody> <tr> <td>WTI CT for LV Side:</td> <td>CTR: 840/1</td> <td>Class:0.5</td> <td>Burden: 30 VA</td> <td>ISF<10</td> </tr> <tr> <td>WTI CT for HV Side:</td> <td>CTR: 280/1</td> <td>Class:0.5</td> <td>Burden: 30 VA</td> <td>ISF<10</td> </tr> </tbody> </table>	WTI CT for LV Side:	CTR: 840/1	Class:0.5	Burden: 30 VA	ISF<10	WTI CT for HV Side:	CTR: 280/1	Class:0.5	Burden: 30 VA	ISF<10	<p>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.</p> <p>Kindly Confirm.</p>	2 no. of CT (1 for HV , 1 for LV) to be provided. CT burden shall be 30 VA, Class 0.5
WTI CT for LV Side:	CTR: 840/1	Class:0.5	Burden: 30 VA	ISF<10										
WTI CT for HV Side:	CTR: 280/1	Class:0.5	Burden: 30 VA	ISF<10										

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
13	Clause No.5.2	As per Clause No.5.2.CORE-XIII. Core Grounding: 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, grounding lead from the core shall be brought out with 1.1 KV class bushing. Kindly confirm?	Shall be as per tender specifications
14	Clause No.5.9	As per Clause No.5.9.RADIATORS- VI(g): g) Top oil filling pump.	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 pump is not required.	Top oil filling not required
15	Clause No.7.2	As per Clause No.7.2. SPECIAL TEST e) 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. Kindly confirm?	Noted and accepted
16	Clause No.7.2	As per 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.	Supply and installation of NIFPS is in scope of bidder
18	Clause No.12.0	As per Clause No.12.0. 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. Please confirm.	Shall be as per tender specifications
19	Clause No.5.0	Clause.No:5 GENERAL CONSTRUCTION:(III) All fasteners of M10 and below size should be of stainless steel. All fasteners of M12 and above sizes should be hot dip galvanized. To achieve a good quality corrosion free painting, bidders 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 galvanized type Nut bolt. Which is widely used across transformer industries. We request you to please accept the same.	Shall be as per tender specifications
20	Clause No.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 be provided with facility for padlocking in either open or closed position. All screwed valves shall be furnished with pipe plugs for protection. Padlocks with duplicate keys shall be supplied along with the valves.	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.	Shall be as per Tender Specification
21	Clause No.5.15	As per Clause No.5.15.ONLOAD TAP CHANGER-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.	Shall be as per tender specifications.
22	Clause No.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 set 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.	Shall be as per tender specifications

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
23	Clasue No.5.20	As per Clause No.5.20MarshallingBox-II Two sets of independent, potential free contacts shall be provided for various alarms/tripsasdetailedbelow.Theauxiliaryvoltageforalar m/tripcircuitshallbe48VDCfor33/11kVTransformer).	Please confirm that two sets of contact means the required contact is 2alarm & 2trip or the requirement is for 1alarm & 1trip. Please confirm the same.	2 alarm & 2 trip
24	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 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.	Shall be as per tender specifications
25	Clasue No:5.23	As per Clause No.5.23. Marshalling Box. 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.	Shall be as per tender specifications
26	Clasue No:7.2	As per Clause No.7.2. TYPE TEST: 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.	Noted and accepted
27	Clasue No: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.	Not Accepted. Shall be as per Tender Specifications
28	Clasue No.: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 submite test reports from OEM. Kindly Confirm.	Noted and accepted
29	Clasue No: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.	Shall be as per tender specifications

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
30	Clasue No: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 mian tank conservator. Kindly Confirm.	Not Accepted. Shall be as per Tender Specifications
31	ENG-EHV-1001 / As per clasue: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.	Shall be decided during DDE
SPECIFICATION FOR 33/11 KV -20/25MVA Power Transformers				
1	Clause.No:4(15) & 34(b)	Clause.No:4(15) Percentage impedance voltage on normal tap at Base MVA (Tolerance shall be as per IS 2026 Part- 1,Clause 9, Table No.1) Clause.No:4(34)(b) Load losses at 75°C KW given as - 64kW	Against this Kindly confirm the Base Rating (Referance) for Given Impedance and Load Losses i.e at 20MVA or 25MVA. Kindly confirm?	Current Density shall be 2.4 at Min tap @ 25 MVA Losses at 20 MVA Base. Impedance at 20 MVA base
2	Clause.No:4(30)& Clause.No:5.3(V)	Clause.No:4(30) Maximum current density for HV and LV winding for rated current given as - 2.4 Amps/Sq.mm Clause.No:5.3(V) The current density of coil shall not exceed 2.4 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.We will proceed current density as per clause no. 4(30). Kindly Confirm.	The current density of coil shall not exceed 2.4 Amps/ sq mm at min tap of respective PTR's higher rating.
3	Clause.No:4(40)(b)	As per clause 4.40.(b) Tap Range Given as : + 4.686% to -20.606 % in steps of 1.56% & d) Principle Tap Position- 5th	Against this we will provide the tap range +4.686% to -20.28% in step of 1.56% to achieve 16 steps/17 position as rated voltage with step percentage of 1.56%. As per the Tap range mentioned in specification then principal tap position will be 4th tap. Kindly confirm?	Noted and accepted
4	Clause.No:4(40)(O &P)&Clause No:4.2(VII) & Clause No:5.15(XI)	Clause No.4(40): O) Remote Tap Changer Control Indicator -----No P) SCADA and TMU compatibility ----- Yes Clause No:4.2(VII): Transformer shall be compatible for Operation along with Tap Changer Control panel orTransformer Monitoring Unit (TMU). Supply of TMU is not in scope of Bidder. Clause No:5.15(XI) OLTC shall be able to do automatic / parallel operations through Transformer Monitoring Unit (TMU).	We wish to bring to your kind notice that, these clauses are contradicting to each other. Please note that Transformer Monitoring Unit (TMU) is not in SSE Scope of supply. If required, we will provide the RTCC,Through this OLTC shall be able to do automatic / parallel operations. Kindly confirm ?	RTCC panel is not required. TMU is not in scope of supply. However, SCADA & TMU compatibility should be provided

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
5	Clause.No: 5.3(XI)	<p>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.</p>	<p>Against this we will proceed to tolerance on Impedance as per IS 2026-Part-1. Kindly confirm?</p>	<p>Shall be as per tender specifications</p>
6	Clause.No: 5.4(II) / Page No:12 of 60	<p>Clause.No: 5.4(II) Inter layer insulation both for HV and LV windings shall be Epoxy diamond dotted Kraft paper and compressed pressboard of reputed make (subject to approval of TPCODL).</p>	<p>These will be applicable for Smaller ratings of Layer type winding construction. For this voltage class windings will be made up with Disc, so Inter layer insulation will not be applicable. We will provide the Winding insulation with Double or triple paper covered insulation and Axial Wedges/Runners, Spacers with Precompressed Press Board.</p>	<p>Noted and accepted</p>
6	Clause.No: 5.7(III) & Clause.No: 5.9(II)&Clause.No: 5.9(IV) / Page No:15 of 60 & 17 f 60	<p>Clause.No: 5.7(III) The two coats shall be of oil and weather-resistant nature with final coat as glossy and nonfading paint of shade 631 as per IS 5 or RAL 7032. Clause.No: 5.9(II) Radiators shall be metal spray painted. Clause.No: 5.9(IV) The color shade for the radiator shall be shade 631 as per IS: 5.</p>	<p>We wish to bring to your kind notice that, these clauses are contradicting to each other. Please confirm the Paint shade for both Transformer and Radiators.</p>	<p>Shade 631 as per IS 5</p>
7	Clause No:5.5(iX) & Clause No:5.12	<p>As per Clause No:5.5(iX) To ensure oil tightness, recessed neoprene or equivalent gaskets shall be used.. As per Clause No:5.12 All bolted connection to the tank shall be fitted with suitable oil-tight gaskets which shall give satisfactory service under the operating conditions. Gaskets shall be of rubber/Nitrate</p>	<p>We wish to bring to your kind notice that, These clauses are contradicting each other. Against this we will proceed with gaskets of rubber bonded cork or Neoprene rubber bonded cork or equivalent shall be used which shall give satisfactory service under the operating conditions. Kindly confirm?</p>	<p>NRBC is accepted</p>
8	Clause.No: 5.2(XIII)	<p>As per Clause No:5.2 XIII)Core Grounding: a. The grounding lead from the core shall be brought out of the tank through a 11 kV class bushing and grounded externally.</p>	<p>We wish to bring to your kind notice that, grounding lead from the core shall be brought out with 1.1 KV class bushing. Kindly confirm?</p>	<p>Shall be as per tender specifications</p>
9	Clause.No: 5.9(VI)(g)	<p>As per clause no: 5.9: Radiators g) Top oil filling pump.</p>	<p>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 pump is not required.</p>	<p>Top oil filling pump is not required.</p>

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response										
10	Clause.No: 5.20	<p>Clause.No: 5.20 In one winding of each phase as described below & As per Clause No.4.0</p> <table border="1" data-bbox="495 403 1254 549"> <tr> <td data-bbox="495 403 647 475">WTI CT for LV Side:</td> <td data-bbox="647 403 748 475">CTR: 1312/1</td> <td data-bbox="748 403 871 475">Class:0.5</td> <td data-bbox="871 403 1068 475">Burden: 30 VA</td> <td data-bbox="1068 403 1254 475">ISF<10</td> </tr> <tr> <td data-bbox="495 475 647 549">WTI CT for HV Side:</td> <td data-bbox="647 475 748 549">CTR: 435/1</td> <td data-bbox="748 475 871 549">Class:0.5</td> <td data-bbox="871 475 1068 549">Burden: 30 VA</td> <td data-bbox="1068 475 1254 549">ISF<10</td> </tr> </table>	WTI CT for LV Side:	CTR: 1312/1	Class:0.5	Burden: 30 VA	ISF<10	WTI CT for HV Side:	CTR: 435/1	Class:0.5	Burden: 30 VA	ISF<10	<p>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.</p>	2 no. of CT (1 for HV , 1 for LV) to be provided. CT burden shall be 30 VA, Class 0.5
WTI CT for LV Side:	CTR: 1312/1	Class:0.5	Burden: 30 VA	ISF<10										
WTI CT for HV Side:	CTR: 435/1	Class:0.5	Burden: 30 VA	ISF<10										
11	Clause.No: 7.2	<p>As per clause no: 7.2: SPECIAL TEST e) Long duration induced AC voltage test (ACLD) transformer winding 72.5<Um≤170kV.</p>	<p>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. Kindly confirm?</p>	Noted and accepted										
12	Clause.No: 5.24	<p>Clause.No: 5.24 NITROGEN INJECTION DRAIN AND STIR SYSTEM</p>	<p>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.</p>	NIFPS supply, installation and commissioning is in bidder's scope										
13	Clause.No: 12(III)	<p>Clause.No: 12(III) The transformer shall be shipped filled with oil/without oil but with the tank filled with Nitrogen under pressure complete with gas cylinder reducer, connection and pressure gauges. (After testing dew point of the Nitrogen filled.)</p>	<p>Transformer shall be Transport with Filled Oil. So Nitrogen filling is not Required. Kindly confirm?</p>	Noted and accepted										
14	Clause.No: 12(V)	<p>v)shock recorder also shall be provided during transport. Data of the same shall be shared during execution.</p>	<p>Generally for this capacity of transformers shock recorders not required for transport. Please confirm.</p>	Shall be as per tender specifications										
15	Clause.No: 17.7(y)	<p>(y):Bushing CT for Neutral (1 no.)</p>	<p>Against this kindly confirm the requirement of neutral CT or Not. IF required then Pelase provide the Neutral CT Details.</p>	NCTR shall be provided during detailed engineering										
16	Clause No:5.27.b	<p>As Per Clause 5.27:MAKE OF MAJOR COMPONENTS & RAW MATERIALS b.Core -- M/S AK Steels, POSCO, Kawasaki/ JFE, Nippon Steel.</p>	<p>We wish to bring to your kind notice that, kindly add the below mentioned vendors also: 1.Baoshan Iron & Steel Co, China 2.Thyssenkrupp Electrical Steel India Pvt. Ltd (TKES), Nasik 3.NOVOLPESTSK STEEL (NLMK) RUSSIA 4.VIZ STEEL LTD, RUSSIA Kindly Confirm.</p>	Thyssenkrupp is accepted										
17	Clause.No: 5.8(XI)	<p>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)</p>	<p>Against this, Kindly confirm whether we need to submit with option -1 i.e HV-- cable box and LV -- Cable Box or with Option -2 i.e HV-- Bare bushing on top of top cover and LV -- Cable Box.</p>	Please consider Bare bushings on both sides with terminal connectors.										

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
18	Clause No.5.11	<p>OIL: Oil for first filling, together with 10% extra shall be supplied with each transformer. The oil shall comply in all respects with the provisions of IS 335 & IEC No.60296 latest amendment.</p> <p>ESTER OIL: In case of Natural Ester oil or Synthetic Ester Oil</p>	<p>We wish to bring to your notice that both the clauses are contradictory with each other we will provide uninhibited Mineral Oil (As per IS:335 & IEC:60296)</p> <p>Kindly Confirm.</p>	Noted and accepted
19	Clause No.7.2	<p>As per Clause No.7.2 TYPE TEST NITROGEN INJECTION DRAIN AND STIR SYSTEM(NIDS)</p>	<p>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.</p>	NIFPS supply, installation and commissioning is in bidder's scope
20	Clause No.5.0	<p>Clause.No:5 GENERALCONSTRUCTION:(III) All fasteners of M10 and below size should be of stainless steel. All fasteners of M12 and above sizes should be hot dip galvanized. To achieve a good quality corrosion free painting, bidders should provide epoxy plus polyurethane paint with minimum paint thickness of 120 microns.</p>	<p>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.</p>	Shall be as per Tender Specification
21	Clause No.5.21	<p>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 be provided with facility for padlocking in either open or closed position. All screwed valves shall be furnished with pipe plugs for protection. Padlocks with duplicate keys shall be supplied along with the valves.</p>	<p>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.</p>	Shall be as per Tender Specification
22	Clause No.5.20	<p>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 1-16K resistance output shall be provided.</p>	<p>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.</p>	Shall be as per tender specifications
23	Clause No.5.20	<p>As per Clause No.5.20 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 48VDC for 33/11kV Transformer).</p>	<p>Please confirm that two sets of contact means the required contact is 2 alarm & 2 trip or the requirement is for 1 alarm & 1 trip. Please confirm the same.</p>	2 alarm & 2 trip
24	Clause No:5.15	<p>As per Clause No.5.15.ONLOAD TAP CHANGER-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 marshalling box.</p>	<p>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.</p>	Shall be as per Tender specifications

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25	Clause No.5.23.	<p>As Per Clause No.5.23. Marshalling Box:</p> <p>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</p> <p>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</p>	<p>Against this except MOG and SPR we will provide only 1No contact only due to no availability of 2No contacts for devices.</p> <p>Kindly Confirm.</p>	<p>Shall be as per Tender Specifications</p>
26	Clause No.5.23.	<p>As per Clause No.5.23. Marshalling Box.</p> <p>Sl.No.14. Auto manual selector switch - Potential free contact in marshalling box.</p>	<p>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.</p> <p>Kindly Confirm.</p>	<p>Shall be as per Tender specifications</p>
27	Clause No.7.2	<p>As per Clause No.7.2. TYPE TEST:</p> <p>10. Test to verify IP55 of Marshalling and cable boxes(if applicable)</p>	<p>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.</p> <p>Kindly Confirm.</p>	<p>IP 55 TTR of marshalling box to be submitted during bid evaluation stage.</p>
28	Clause No.7.2	<p>As per Clause No.7.2. TYPE TEST:</p> <p>7. Temperature rise for determining the maximum temperature rise after continuous full load run.</p>	<p>We wish to bring to your kind notice that, we will conduct temperature rise test in our NABL accredited laboratory.</p> <p>Kindly Confirm.</p>	<p>Not Accepted. Shall be as per Tender Specifications</p>
29	Clause No.7.2	<p>As per Clause No.7.2. TYPE TEST:</p> <p>8. Tests on On-load tap changer.</p>	<p>We wish to bring to your kind notice that, we will submit test reports from OEM.</p> <p>Kindly Confirm.</p>	<p>Noted and accepted</p>
30	Clause No.5.13	<p>As per Clause No.5.13. Oil Preserving Equipment:</p> <p>v. Separate conservator tank shall be provided for OLTC.</p>	<p>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.</p> <p>Kindly Confirm.</p>	<p>Not Accepted. Shall be as per Tender Specifications</p>
31	Clause No.5.22	<p>As per Clause No.5.22. MOG:</p> <p>Sl.No.1. Mounting Pad Diameter - 150mm</p>	<p>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.</p> <p>Kindly confirm.</p>	<p>Shall be decided during DDE</p>

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32	Clasue No: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.	Shall be as per Tender specifications
Pre-bid queries				
1	Tender NIT no. TPCODL / CCG / 24-25 / 1000000631 /Clause no. 2.0 Pre-Qualification Criteria/ a) Technical Pre-Qualification Requirements for Meter manufacturer (OEM) / 3.Performance (Page no.7 of 594)	The bidder should have performance certificate from at least 2 reputed companies for satisfactory performance within 7 years from the bidding date. In case the bidder has got previous association with Tata Power / TPCODL / TPNODL / TPWODL / TPSODL 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-Performance certificate and contact details of client's needs to be submitted	We bring to your kind notice that, there are very less tenders floated by the DISCOMs in INDIA to call for procurement of Tendered item (1000kVA) or higher rating with voltage class of 11/0.433kV, so it would be difficult to submit the credentials of 1000kVA or above rating Distribution transformers. Further, please note, many power utilities /DISCOMs purchase the power transformers upto 12.5MVA only. We kindly request you to allow us to submit the supply and performance credentials pertaining to power transformers with voltage class of 33/11kV including the tendered item for 1000kVA DTRs. Also, allow us to submit the supply credentials pertaining to power transformers with voltage class of 33/11kV 12.5MVA and 16MVA rating as a part of qualification criteria as against 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.	Contracts to revert
2	Tender NIT no. TPCODL / CCG / 24-25 / 1000000631 /Clause no. 2.0 Pre-Qualification Criteria/ b) Financial Pre-Qualification Requirements / 2.Experience (Page no.7 of 594)	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		Contracts to revert
3	Tender NIT no. TPCODL / CCG / 24-25 / 1000000631 Clause no. 3.1. Price Basis/Page no. 8 of 594	The prices shall remain FIRM during the entire contract period.	As this tender floated on Rate contract basis. Please note, prices of all the major raw materials and components, required for manufacturing of transformers, are increasing abnormally and have reached levels, beyond the imagination of the industry. It would be very difficult to predict the price movement of material for the contractual period mentioned by your company. It would be mutually beneficial, if Price Variation, as per IEEMA formulae, is adopted for this tender as against the "FIRM Price" basis. We request you to accep the Price variation as per the latest IEEMA formulae. Please review and confirm your acceptance.	Contracts to revert