

**CORRIGENDUM NO. 2 DATED: 01.04.2025**

**TO**

**BIDDING DOCUMENT**

**GeM Bid No. - GEM/2025/B/6031786**

**TENDER NO.: TUSCO/CSPP/TRF/2024-25/10**

**Subject: Design, engineering, manufacture, testing at manufacturer's works, supply, transportation, unloading and delivery at site including insurance & storage, erection, testing and commissioning of 33/220kV Power Transformer with Rated Capacity of 4 Nos. X 125MVA & 3 Nos. X 100MVA for Pooling substations (PSS1 & PSS2) at 800 MW Solar Park Project at Mau, Chitrakoot (U.P.)**

This is to inform all prospective bidders that the following corrigendum with respect to the subject tender has been issued as below:

All other terms & conditions of the tender shall remain unchanged.

The complete Tender Document is available on Government e Marketplace (GeM) Portal Website:

<https://gem.gov.in/>

Subsequent Clarification /Amendment/ Corrigendum, if any, shall be uploaded on the above website only.

**AGM(C&MM)**

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**Pre Bid Queries of tender for**

**"Design, engineering, manufacture, testing at manufacturer's works, supply, transportation, unloading and delivery at site including insurance & storage, erection, testing and commissioning of 33/220kV Power Transformer with Rated Capacity of 4 Nos. X 125MVA & 3 Nos. X 100MVA for Pooling substations (PSS1 & PSS2) at 800 MW Solar Park Project at Mau, Chitrakoot (U.P.)"**

Sl.No.	Specification Details	Bid document page No	Bid Provisions	Query/ Clarification sought/ Suggestion raised by the bidders	TUSCO's Responses/ Clarifications
1		VOLUME-II		There is lot of Descripencies between Volume-II of TUSCO/CSPP/TRF/2024-25/10 and TDS of Power Transformer R1 received from Customer. Hence It is requested to confirm which spec is to be considered in conflicting clauses.	CEA Guidelines as in Volume II of bid documents shall prevail
2		Volume-II Scope / Page 2 of 39 Clause 1.2.5	Supply of RTCC	It is contradictory to that mentioned in Sl NO. 26.26 of TDS of power transformers. Kindly confirm the the scope.	Remote Tap Control Cubicle (RTCC) (Applicable For OLTC), it is in scope of transformer Suppliers
3		Volume-II Scope / Page 2 of 39 1.2.6	Supply & Erection of Nitrogen Injection Fire Protection System (NIFPS) system package of the transformer. Nitrogen Injection type Fire Protection System (NIFPS) including structure of NIFPS is envisaged for 220kV class Transformers as per Technical specification.	Kindly provide the technical spec / details of NIFPS mentioned in the clause	All technical details and details of NIFPS should be provided by the bidder as per the prevailing standards, guidelines, and compatibility of the transformer.

4		Volume-II Scope / Page 2 of 39 1.2.8	<p>All cables including special cables from Main Transformer unit to Marshaling box/ cooler control cabinet/ Drive Mechanism box (DM)/ any other cubicle (as applicable) and only special cable (if any) from Transformer Marshaling Box/ Drive Mechanism Box (DM)/ any other cubicle (as applicable) to C&amp;R panels shall be in the scope of contractor.</p> <p>The cost of above cables including special cables is deemed to be included in the price of each Transformers.</p>	<p>It is contradictory to clause 5.2 &amp; 5.3/ Page 5 of 39 in which it is clearly specified that Cables and cabling beyond Transformer MB to Purchaser's supplied panels like CRP, SCADA and Auxiliary power and control cables from control room/SPR and RTCC panel to marshalling box of transformer are excluded form scope of siupply.</p> <p>Please cconfirm</p>	<p>Existing bid provision shall prevail. Cables and cabling (Except Special cables) beyond Transformer MB to Purchaser's supplied panels like CRP, SCADA and Auxiliary power and control cables from control room/SPR and RTCC panel to marshalling box of transformer are excluded from scope of supply.</p>
5		Volume-II Scope / Page 2 of 39 1.2.14 & 1.15.3	<p>Supply of all the testing equipment and commissioning of transformer at site.</p>	<p>Please confirm bidder to supply testing equipment if yes to provide the list and specification of testing equipmnet <b>OR</b> Bidder to arrange all testing and commissioning equipment for any special test such as capacitance and tan delta measurement kit, winding resistance measurement kit or any such equipment, required for testing and commissioning of transformers at site.</p>	<p>Scope of the bidder is Supply Installation,erection, testing &amp; Commissioning of transformer as per bid provision. All required tools &amp; tackles, equipments and resources required to execute the work, shall be arranged by the bidder at its own cost as part of the scope.</p>
6		Volume-II Scope / Page 2 of 38 1.2.6 & 4.2	<p>Supply of cables, cabling etc. from transformer body up to Transformer Marshalling box are in transformer scope as per CI 1.2.6 and Cables and cabling beyond Transformer MB to Purchaser's supplied panels like CRP, SCADA etc are excluded from our scope as per CL 4.2.</p>	<p>It is contradictory to that mentioned in SI NO. 15.25.3.13/ Page 28 of Volume-II in which "Suitable communication hardware shall be provided to communicate up to distance of 1 km between digital RTCC relays. Cables as required for parallel operation of OLTCs of all transformers (including existing transformers wherever required) from Digital RTCC relays" shall be considered included in the scope. The same shall be excluded form our scope in line with CL 4.2.</p>	<p>Existing bid provision shall prevail. As per scope of work mentioned in bid documents. Cables and cabling (Except Special cables) beyond Transformer MB to Purchaser's supplied panels like CRP, SCADA and Auxiliary power and control cables from control room/SPR and RTCC panel to marshalling box of transformer are excluded from scope of supply.</p>
7		Volume- II Bushing/ Page no.19 of 39 16.19	<p>Bushing above 52 KV shall be RIP / RIS.</p>	<p>It is contradictory to (OIP) Type of HV bushing mentioned in SI NO. 15.16.1 of TDS of power transformer. Kindly confirm the type of Bushing.</p>	<p>Bushing above 52 KV shall be RIP/RIS.</p>

8		Volume-II Page 24 of 39 16.22.1.11	Cooling fans and oil pump motors shall be suitable for operation from 415 volts, three phase 50 Hz power supply and shall be of premium efficiency class IE3 conforming to IS: 12615.	However as per SL NO. 15.19.1 Type of Cooling Fan TEFC. Kindly confirm the type of fan and motors. Kindly review the type of Fans. We are offering Cooling fans motors shall be axial flow type conforming to IS:325 as per standard practice.	Type of Cooling Fan TEFC, please follow Specification as mentioned in bid.
9		Volume-II Page 23 16.23.2	All valves up to and including 50mm shall be of gun metal or of cast steel. Larger valves may be of gun metal or may have cast iron bodies with gun metal fittings.	In SI NO. 15.9.2 (V) of TDS of power transformer the type of valve is Brass. It is contradictory to specified in Volume-II specification. We confirm to comply the specification as it is also similar to CEA guideline and standard practice.	All valves up to and including 50mm shall be of gun metal or of cast steel or of brass. Larger valves may be of gun metal or brass or may have cast iron bodies with gun metal / brass fittings.
10		Volume-II Page 28 of 39 16.25.3.13	It shall be possible to communicate/integrate with all digital RTCC relays of different make located at different locations in the substation by making hardwire and using IS/IEC 61850 communication link.	Integration of different make relays are not feasible . Make and model of Digital RTCC relay to be define and Bidder shall supply the Digital RTCC relay as per approved make & model .	All relay shall be under the scope of bidder. All Transformers in present scope are new ones, bidder to select same make of equipment for parallel operation.
11		Volume-II Page 23 16.23.2	Suitable communication hardware shall be provided to communicate up to distance of 1 km between digital RTCC relays. Cables as required for parallel operation of OLTCs of all transformers (including existing transformers wherever required) from Digital RTCC relays shall be considered included in the scope.	For diiferent make of Digital RTCC It is not feasible the parallel operation. Hence It is requested to share the make and model of Digital RTCC relay of existing transformer so we can review the possibility of parallel operation.	All Transformers in present scope are new ones, bidder to select same make of equipment for parallel operation.
12	Vendor list Requ	--	Not specified	We have considered Reputed Indian make & Bidder approved vendors for the procurement of items where specific vendors are not specified in spec.	Bidder to submit list of vendors during approval of drawing before manufacturing
13	Technical datasheet of Power Transformer R1	Page 5 of 9 SL NO 15.16.5	Minimum clearance in air for HV bushing shall be 2700 mm.	The clearance specified in the TDS is significantly higher compared to the values given in IS-2026 Part-3 and IEC 60076 Part-3, making it challenging to maintain. According to IES and IEC standards, the minimum air clearance for 220 kV is 2300 mm (Phase-Phase) and 1700 mm (Phase-Earth) for 950 kVp. Please review the air clearance requirements.	As per IEC-60076-3 (2000- table 7) standards, the minimum air clearance for 220 kV is 2300 mm (Phase-Earth) and 2650 mm (Phase- Phase) for 950 kVp.

14	Technical datasheet of Power Transformer R1	Page 6 of 9 SL NO 18.15	Means for operating driving mechanism 18.15.1 Motor driven with spring (stored energy mechanism) Required provided/not provided 18.15.2 Motor driving along in the event of failure of stored energy mechanism Required provided/not provided	The Point is not clear. Kindly elaborate the data required so we can arrange the same from Tap changer supplier.	Means for operating driving mechanism 18.15.1 Motor driven with spring (stored energy mechanism) Required & to be Provided 18.15.2 Motor driving along in the event of failure of stored energy mechanism Required & to be provided
15	Testing Require	--	Test to be conducted are mentioned in Annexure-C of bidding document and SL 27 of TDS of Power Transformer R! received.	Kindly confirm wich to be followed.	Follow VOL II (as per CEA guideline), Annexure C is elaboration of testing to be done.
16	GEM/2025/B/6 031786 Page no. 02 of 10		EMD Amount: Rs Rs. 1,66,51,251/-	As per Cl no. 4, xiii, m(viii), page no 19 of 53 of GeM GTC document (4.Enabling provisions of Rule 149 of General Financial Rules- 2017), EMD BG submission for GeM bidding is exempted for CPSEs. Hence, EMD BG submission is not required. Kindly confirm.	Exemption shall be as per GeM Terms & Conditions
17	Attachment 12 / Appendix – 2	-	PRICE ADJUSTMENT 1. Contract Price shall remain firm till the commissioning and completion of the facilities. No price escalation shall be payable by Employer	The Transformer product consist of mainly Copper, CRGO, Insulating Material, Oil & Steel and the price of Major material like Copper, CRGO, Insulating materials are very volatile in the nature. It is not possible to predict/ estimate the proper firming up forentire delivery period. Hence, we propose to quote Prices of Transformers with PVC as per IEEMA Formulae without any ceiling limit on either side with base date as 1st working day of One month prior to date of tendering. PVC for ETC works shall also be provided. PVC shall be without ceiling. Kindly confirm.	Existing bid provision shall prevail.

18	SPECIAL CONDITIONS OF CONTRACT (SCC) Page no. 1 of 18	Cl no. 1	The Time for Completion shall be as under: 1. 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station- 1: 11 months. 2. 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station- 2: 11 months.	The present delivery schedule of all seven transformers within 11 month is not feasible considering raw material/ RIP bushing availability. A minimum of 12 months is needed for manufacturing of 1 no. of 100/125 MVA Transformer. The delivery will be 01 nos after 12 months from the date of drawing approval and one no per month thereafter. Kindly confirm.	The Time for Completion shall be as under: 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station-1 within 12 Months & 4 Nos. of 33kV/220kV, 125MVA, Power Transformer for Pooling Station-2 within 13 Months From issuance of LOA
19	Appendix-1 13. TERMS AND PROCEDURES OF PAYMENT	A.1	A1. An advance not exceeding 10% of the Contract Value as awarded shall be paid to the Contractor....	We request M/s TUSCO Ltd to kindly amend the above-mentioned provision and provide 10% interest free advance. This will encourage the Contractor to avail the interest free advance without envisaging any risk of interest and improve its cashflows.	Existing bid provision shall prevail
20	Appendix-1 13. TERMS AND PROCEDURES OF PAYMENT	C	Final Payment Balance 10% (ten percent) of the Supply price component of Main Equipment/materials shall be paid as per the following: a) 10% (Ten percent) within 15 days of Successful completion of erection, testing and commissioning of the individual Transformer....	The ETC/ charging of transformer is dependent on many factors beyond the purview of this tender. In case ETC activities is not started/ delayed more than three months due to reason not attributable to bidder. The balance 10 % payment shall be released after three months. Kindly confirm.	Existing bid provision shall prevail.
21	SPECIAL CONDITIONS OF CONTRACT (SCC) Page no. 12 of 18	Cl no. 35	If the Contractor fails to comply with the Time for Completion in accordance with Clause GCC 22 for the whole of the facilities, (or a part for which a separate time for completion is agreed) then the Contractor shall pay to the Employer a sum equivalent to half percent (0.5%) of the prices....	Standard LD clause in the industry is 0.5% per week to max 5% of undelivered portion. Please accept the same.	Existing bid provision shall prevail

22	NIT Brief Scope of Work	CI no. 1	Design, engineering, manufacture, testing at manufacturer's works, supply, transportation, unloading and delivery at site including insurance & storage, erection, testing and commissioning at site along with all fittings, accessories including marshalling box, digital RTCC panel, foundation bolts (if any), cables and mandatory spares for the following: 1. 4 Nos. of 33kV/220kV, 125MVA, PowerTransformer for Pooling Station-1 2. 3 Nos. of 33kV/220kV, 100MVA, PowerTransformer for Pooling Station-2	As the complete site is managed by M/s TUSCO Ltd, storage and storage insurance shall be in Customer's scope. If not then kindly provide fixed time line in months for storage and completion of ETC works for proper assessment of estimates and realisation of final payment.	Existing bid provision shall prevail
23		Technical Datasheet for Power Transformer & 10.1.3, 10.1.5	10.1.3 One min. Power frequency withstand voltage [rms]-HV (CEA): 395kV kV/1 min. 10.1.5 Induced over-voltage withstand (rms) (Table- 4 IEC60076-3: 460kV	As per IEC60076-3 Table 2 and as per CEA solar specification (Annexure-A: Specific Technical Requirement, 5.0 (a) 100 MVA & 125 MVA, 220/33 kV 3-ph Power Transformer, clause no 21-iv) for 950kVp Lightning Impulse, one min power frequency withstand voltage is specified as 395kVrms. Accordingly Bidder considering power frequency as 395kVrms & Lightning Impulse as 950kVp. Please confirm.	Bidder's understanding is correct.
24		Technical Datasheet for Power Transformer & 14.4.2.	14.4.2 HV winding a. Type of winding: Interleaved	Bidder Considered HV type of winding Shielded Disc, please confirm	Detailed engineering is in scope of the bidder.
25		Technical Datasheet for Power Transformer & 11.1	11.1 Parallel operation with other transformer	Bidder considering parallel operation with similar transformer having same characteristics as of offered transformer. Please confirm	All Transformers in present scope are new ones, bidder to select same make of equipment for parallel operation.
26		Technical Datasheet for Power Transformer & 18.4	Technical Specification for On-load Tap Changer for Power Transformers 18.4 Voltage class of OLTC 170kV	OLTC with voltage class of 123kV with 500A is sufficient for the dielectric values specified in the specification. Hence Bidder considering OLTC with 123kV class. please confirm.	Current rating and Voltage class - Bidder to specify ( necessary justification to be provided during design stage)

27		Technical Datasheet for Power Transformer & 18.5	Dehydrating Silica Gel Filter Brea	Bidder has considered dehydrating type (i.e., Conventional type) silica gel breathers as per Specification requirement kindly confirm	Existing bid provision shall prevail
28		Technical Datasheet for Power Transformer & 15.19.1	15.19.1 Make and type: TEFC	IE3 fans with M/s Marathon make is considered. Kindly confirm the requirement	Type of Cooling Fan would be TEFC, Please Follow Specification as mentioned in bid.
29		Time schedule, Appendix-4 Page No 201 of 488	4 Nos. of 33kV/220kV, 125MVA, Power Transformer for Pooling Station-1 11 Months 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station- 2 11 Months	We would like to inform that most of supplier have increased lead time of supply of Major Raw materials (CRGO, Insulation etc.). Considering receipt of raw materials and factory repairing the transformer, we request you to kindly consider our below delivery in subject tender. To supply one Number of Transformer within 22-months from the date of Purchase Order and balance one per month thereafter.	The Time for Completion shall be as under: 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station-1 within 12 Months & 4 Nos. of 33kV/220kV, 125MVA, Power Transformer for Pooling Station-2 within 13 Months From issuance of LOA
30		Attachment 12/Appendix - 2 Page no 199 of 491	Contract Price shall remain firm till the commissioning and completion of the facilities. No price escalation shall be payable by Employer.	Price shall be VARIABLE as per latest IEEMA PVC formula issued vide Circular No. IEEMA/PVC/PWR TRF_Up to 400 KV/2021 Effective from: 1st September 2021. With base. date one prior to tender bidding date as per IEEMA Please confirm.	Existing bid provision shall prevail.
31		General	Purchase order	Please clarify the Post Order activities will be through GeM Portal or directly through TUSCO Limited as GeM Portal has additional Charges for Order execution.	Post order activities will be undertaken through TUSCO Limited. However, any fees/payment to GeM is attributed to the bidders.
32				The price basis should be variable as per IEEMA Price Variation Formula	Existing bid provision shall prevail.



33				<p>If bidder have Short Circuit Report of higher rating Auto Transformer conducted during last 5 years, than the requirement of fresh Short Circuit Test against this specification should waive off. Please consider.</p>	<p>The transformer, the design of which is similar to the offered transformer, should have been successfully tested for short circuit withstand capability as per IS 2026 Part-5 in line with the requirement of CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations.</p> <p>As per CEA Guidelines Dynamic Short Circuit test will be valid upto 10 Years.</p> <p>In case, manufacturer has not conducted short circuit test earlier, the same shall be carried out on offered transformer.</p> <p>Relaxation on requirement of Dynamic Short Circuit (DSC) Test on Transformer shall be governed by CEA guidelines and circulars in this regard.</p>
34				<p>The payment terms shall be 100% after delivery of transformer at site as only supervision is in scope of bidder.</p>	<p>Existing bid provision shall prevail.</p>
35				<p>The delivery Schedule of transformers shall be "Commencement within 10 months from issue of Purchase order and completion @1 no. per month thereafter"</p>	<p>The Time for Completion shall be as under: 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station-1 within 12 Months &amp; 4 Nos. of 33kV/220kV, 125MVA, Power Transformer for Pooling Station-2 within 13 Months From issuance of LOA</p>
36				<p>Any civil work not in bidder's scope.</p>	<p>Bidder Understanding is correct, However Bid provision shall prevail.</p>

37	Time Period	15; 6 of 488	Duration in Months from the date of Notification of Award: 11 Months (for Supply, Installation, Testing & Commissioning in all respect)	FOR Site basis Delivery (in case of non-applicability of dynamic short circuit test): To be commenced within 11 months from the date of receipt of firm Purchase Order from the Customer; & to be completed @ 2 Nos. Transformers per month thereafter. In case of applicability of dynamic short circuit test, an extension of six months will be required in the commencement of FOR Site basis Delivery. Timeline for Erection; Site Testing; & Commissioning: To be discussed & mutually agreed upon between the Customer & M/s. Bidder in the event of the placement of the Order.	The Time for Completion shall be as under: 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station-1 within 12 Months & 4 Nos. of 33kV/220kV, 125MVA, Power Transformer for Pooling Station-2 within 13 Months From issuance of LOA
38	Supplementing Sub-Clause GCC 4.1 & 4.2	1; 141 of 488	11 Months	FOR Site basis Delivery (in case of non-applicability of dynamic short circuit test): To be commenced within 11 months from the date of receipt of firm Purchase Order from the Customer; & to be completed @ 2 Nos. Transformers per month thereafter. In case of applicability of dynamic short circuit test, an extension of six months will be required in the commencement of FOR Site basis Delivery. Timeline for Erection; Site Testing; & Commissioning: To be discussed & mutually agreed upon between the Customer & M/s. Bidder in the event of the placement of the Order.	The Time for Completion shall be as under: 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station-1 within 12 Months & 4 Nos. of 33kV/220kV, 125MVA, Power Transformer for Pooling Station-2 within 13 Months From issuance of LOA
39	Replace the Clause GCC 9.3.1.2(d) with the following	6; 143 of 488	Penalty in case of delay in signing of contract agreement attributable to the contractors	Request the Customer to remove the said penalty condition.	Existing bid provision shall prevail
40	Replace the first para of GCC Sub-Clause 23.2 with the following	36; 153 of 488	Defect Liability Period	* We request the Customer to link the Defect Liability Period with the FOR Site basis Supply of the Transformer instead of linking it from the date of taking over / completion of facilities. * Clause (ii) will not be applicable.	Existing bid provision shall prevail

41	Supplementing Sub-Clause GCC 23.8	38; 153 of 488	Defect Liability Period	"Whichever is later" to be replaced with "Whichever is earlier".	Existing bid provision shall prevail
42	Appendix-2	1; 197 of 488	Price Adjustment	We request the Customer to change the price basis as Variable subject to IEEMA's latest PV (Price Variation) Clause / Formula for Power Transformers w.e.f. 1st Sept. 2021 without any ceiling on either side.	Existing bid provision shall prevail, price shall remain firm.
43	--	--	Comments / Clarifications in regard to Scope for -> * Erection; Testing; & Commissioning * Cable	Erection; Site Testing; & Commissioning of Transformer shall be included in the Scope of Work considering that Customer will provide Power Supply, Site Office, Toilet, Ambulance, First Aid Centre, Worker Sitting Area & Developed Store with proper lighting. Other Conditions: 1. Any kind of civil work will be excluded from M/s. Bidder's Scope of Work. 2. Any type of equipment earthing work are not included. 3. Cabling & termination work from the transformer to any Customer protection panel / SCADA panel etc. are not included in the scope of work. 4. Customer will provide adequate storage area to M/s. Bidder at free of cost. Storage area must be levelled by the Customer. 5. Customer must provide adequate levelled area for office cabin, first aid centre, ambulance & toilet cabin. 6. Transformer must be supplied in oil filled condition. 7. Proper access road from the Site to Store Area will be in the Customer's scope. 8. Safe & clear front area of transformer installation will be provided by the Customer for placing the machinery & crane movement for erection. 9. Gate pass must be arranged by the Customer. 10. To place the transformer on the foundation, if it was essential to remove & reinstall the transformer fencing, a task is excluded from M/s. Bidder's scope. 11. Scope of supply for Power / Control / any Special cable / FO cable shall be limited from Transformer tank mounted accessories to Individual Marshalling Box (IMB). 12. Power / Control / Any Special Cable required for Interconnection from IMB to RTCC panel / control room / SCADA Panel etc. shall not be under M/s. Bidder's scope. No special cable & accessories (i.e.	Scope of the bidder is Supply, Installation, erection, testing & Commissioning of transformer as per bid provision. However, bidder shall have to be acquainted with

					site conditions and Existing bid provision shall prevail
44				LIU, Ethernet switch, FO cable etc.) will be included in M/s. Bidder's scope for automation. Any material required to supply / perform for integration with existing transformers or substation automation system for is not included in M/s. Bidder scope. 13. Supply & Integration of any existing spare units, if any, with new supplied Transformer IMB is not considered in M/s. Bidder's scope.	
45		1.2.3 & 2/39	Erection of the supplied transformer at site with all accessories.	Said Clause to be discussed between the Customer & M/s. Bidder.	Scope of the bidder is supply, Installation,erection, testing & Commissioning of transformer as per bid provision.
46		1.2.12 & 2/39	Special tools & tackles if any required for erection & maintenance of the Power Transformer.	No special tools & tackles required	All required tools & tackles, equipments and resources required to execute the work, shall be arranged by the bidder at its own cost as part of the scope.
47		1.2.13 & 2/39	Oil filling and oil filtration at site.	Said Clause to be discussed between the Customer & M/s. Bidder.	Scope of the bidder is supply, Installation,erection, testing & Commissioning of transformer as per bid provision.

48		1.2.14 & 2/39	Supply of all the testing equipment and commissioning of transformer at site.	Said Clause to be discussed between the Customer & M/s. Bidder.	Scope of the bidder is supply, Installation, erection, testing & Commissioning of transformer as per bid provision.
49		10.2.1, 10.2.3 & 6/39	Measured losses must be within 2% tolerance of the guaranteed losses. Further, for losses beyond 2% the equipment may be rejected in line with CEA guidelines. Also, no benefit shall be provided for lower losses.	We request you not to reject transformer if losses increased by 2%. Losses exceed upto 10% should be penalized as per penalty rates.	Already penalty provision along with tolerance is mentioned in Bid. Bid provision shall prevail
50	TUSCO/CSPP/TRF/2024-25/10; VOLUME-II	12.1 & 8/39	The transformer, the design of which is similar to the offered transformer, should have been successfully tested for short circuit withstand capability as per IS 2026 Part-5 in line with the requirement of CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations. The criteria for similar transformer is specified in of CEA guidelines (Annexure: J) for Solar Power Transformer.	We do not have similar design to prove Short circuit similarity as per Annexure-J of CEA guidelines for Solar Power Transformer. In view of this, we request you to accept Short circuit calculations as per IEC 60076- 5 to prove short circuit withstandability.	The transformer, the design of which is similar to the offered transformer, should have been successfully tested for short circuit withstand capability as per IS 2026 Part-5 in line with the requirement of CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations. As per CEA Guidelines Dynamic Short Circuit test will be valid upto 10 Years. In case, manufacturer has not conducted short circuit test earlier, the same shall be carried out on offered transformer. Relaxation on requirement of Dynamic Short Circuit (DSC) Test on Transformer shall be governed by CEA guidelines and circulars in this regard.

51		12.2 & 8/39	The relevant Test Report / certificate shall be enclosed along with bid. Further, design review of offered transformer shall be carried out based on the design of reference transformer, which has already been subjected to Short circuit tests in lieu of repetition of Short circuit tests. In case, manufacturer has not conducted short circuit test earlier, the same shall be carried out on offered transformer. A format (forms part) filled with data of a typical sample case has been prepared for reference and guidance to compare a Short Circuit tested transformer with the offered transformer in order to verify the similarity criteria as per of CEA guidelines for Solar Power Transformer.	We do not have similar design to prove Short circuit similarity as per Annexure-J of CEA guidelines for Solar Power Transformer. In view of this, we request you to accept Short circuit calculations as per IEC 60076- 5 to prove short circuit withstandability.	Existing Bid provisions shall prevail.  Relaxation on requirement of Dynamic Short Circuit (DSC) Test on Transformer shall be governed by CEA guidelines and circulars in this regard.
52		16.19.1 & 19/39	52 kV, 145 kV, 245kV and 420kV	We will offer 245kV bushings type as OIP as per datasheet. Kindly confirm	Bushing above 52 KV shall be RIP/RIS.
53		17.1 & 34/39	Each transformer shall be supplied with a full kit of special tools and tackles required for unloading and erection of transformer at site.	No special tools & tackles required	All required tools & tackles, equipments and resources required to execute the work, shall be arranged by the bidder at its own cost as part of the scope.

54	TUSCO/CSPP/TF/2024-25/10; VOLUME-II Annexure-C: TEST PLAN AND PROCEDURES	13 & 6/7	<p>Dynamic short circuit withstand test: The test shall be carried out as per IEC 60076-5. Dynamic short circuit test shall be carried out in HV-LV combination at nominal &amp; extreme tap positions. For LV winding, dynamic short circuit shall be carried out on HV. Type tests shall be carried out before short circuit test. Following shall also be conducted before and after Short Circuit test:</p> <p>i) Dissolved gas analysis ii) Frequency response analysis iii) All routine tests</p> <p>Detail test procedure shall be submitted by contractor &amp; shall be approved before short circuit test.</p>	<p>We do not envisage to carry out the dynamic short circuit test physically on the said transformer. In lieu of the same, we will prove the capability of the transformer to withstand the short circuit by way of calculation.</p>	<p>Existing Bid provisions shall prevail.</p> <p>Relaxation on requirement of Dynamic Short Circuit (DSC) Test on Transformer shall be governed by CEA guidelines and circulars in this regard.</p>
55	Delivery Schedule	Section – III: Bid Data Sheets Page- 60 of 488	4 Nos. of 33kV/220kV, 125MVA, Power Transformer for Pooling Station-1 within 11 Months & 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station-2 within 11 Months	As per manufacturing standeard practice kindly consider 1st unit within 12 Months & Balance 1 No. unit in 1 Month there after.	The Time for Completion shall be as under: 3 Nos. of 33kV/220kV, 100MVA, Power Transformer for Pooling Station-1 within 12 Months & 4 Nos. of 33kV/220kV, 125MVA, Power Transformer for Pooling Station-2 within 13 Months From issuance of LOA

56	Terms of Payments	Page 192 of 488	<p>1. An advance not exceeding 10% of the Contract Value as awarded shall be paid to the Contractor at the rate of interest mentioned in SCC.</p> <p>2. 80% of the Supply price component of Main Equipment / Materials (including Mandatory Spares) shall be paid progressively on submission of documents indicated here in under:</p> <p>3. Balance 10% (ten percent) within 15 days of Successful completion of erection, testing and commissioning of the individual Transformer/ on pro- rata basis, along with proof of submission of required number of reproducibles</p>	<p>We Suggest Payment terms are as under &amp; ETC Charges will Pay separately:.</p> <p>1. 10% interest free advance of ex- works Value without GST.</p> <p>2. Balance 90 % with 100% GST after inspection &amp; Dispatch against Invoice &amp; Material Inspection Clearance Certificate (MICC) for despatch issued by the Employer's representative and the Contractor's factory inspection report within 15 Days</p>	Existing bid provision shall prevail.
57	Price Basis	Attachment 12 / Appendix – 2 Page 197 of 491	Contract Price shall remain firm till the commissioning and completion of the facilities. No price escalation shall be payable by Employer.	As per the market volatility, we request you to consider the <b>IEEMA Price</b> as per the IEEMA Circular which is <b>1 Month Prior to the Bid submission date</b> & as on date all the Govt bodies as well as private sectors are place the order with the IEEMA Circulars only.	Existing bid provision shall prevail.
58	Short Circuit test Requirement	SCOPE & INTENT OF SPECIFICATION Clause No.11 Page 456 of 491	The transformer, the design of which is similar to the offered transformer, should have been successfully tested for short circuit withstand capability as per IS 2026 Part-5 in line with the requirement of CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations. The criteria for similar transformer is specified in of CEA guidelines (Annexure: J)	Kindly accept the Short circuit forces calculations as this test is destructive test & due to requirement of less quantity in both the rating Short circuit charges for 220 kV will be huge impact on Price.	The existing bid provision shall prevail.



59			Requirement of Dynamic short circuit test and associated clauses/ bid provisions		The relaxation on requirement of Dynamic Short Circuit (DSC) Test on Transformer as per Central Electricity Authority (Technical standards for Construction of Electrical Plants and Electric lines) Regulation, 2022 shall be governed by CEA guidelines and circulars in this regard.
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