

MAHARASHTRA STATE ELECTRICITY TRANSMISSION COMPANY LIMITED
[CIN:U40109MH2005SGC153646]

OFFICE OF THE CHIEF ENGINEER
Transmission O&M Department,

**‘Prakashganga’, MSETCL, Plot No. C-19, E- Block, Bandra Kurla Complex,
Bandra(E), Mumbai-400051 (Maharashtra), India**

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SP/T-0510/0324/

Date: 28.03.2024

CLARIFICATIONS ON PRE-BID QUERIES-1

Sub: Procurement of 100kV, 132kV & 220kV Voltage Class Power Transformers/ICTs of various ratings (108 Nos.) alongwith New Uninhibited High Grade Mineral Insulating Oil for Augmentation Scheme and Emergency/Critical Spares for various Zones of MSETCL against e-Tender No. SP/T-0510/0324 (RFx 5000001210), Submission and Opening Due on 19.04.2024

[Including Power Transformers (11 Nos.) Re-Tendered against SP/T-0501/0124 (RFx 5000001183)]

Ref: Pre-Bid Meeting held on 27.03.2024 at ‘Prakashganga’, MSETCL, Mumbai

Bidders are requested to refer the Annexure-I enclosed herewith regarding Clarifications on Pre-Bid Queries against the subject e-Tender.

Bidders are requested to submit their Bids accordingly.

This is issued without prejudice to all other Terms & Conditions of the subject e-Tender.

This Notification is published on SRM Portal viz. <https://srmetender.mahatransco.in/> and MSETCL Portal viz. <https://www.mahatransco.in/>

Encl: Annexure-I

Sd/-
Chief Engineer (Trans. O&M)-I/C

Annexure-A
Clarifications on Pre- Bid Queries-I

Sr.No.	Reference	As per Tender document	Pre- Bid Query of Bidder	MSETCL's Clarifications
1	2	3	4	5
1	<p><u>Section-III</u> Clause No. 6 Delivery Period</p>	<p>Item 1: 200MVA, 220/132/11kV ICT [500000371] Commencement: 1 No. within Six (06) Months from the Date of LoA Completion: @ 1 No. per Month thereafter</p> <p>Item 2: 25MVA, 132-110/ 33kV Power Transformer [500000410] Commencement: 1 No. within Five (05) Months from the Date of LoA Completion: @ 1 No. per Month thereafter</p> <p>Item 3: 25MVA, 132/33kV Power Transformer [500000354] Commencement/Completion: 1 No. within Five (05) Months from the Date of LoA</p> <p>Item 4: 50MVA, 220/22kV Power Transformer [500017984] Commencement: 1 No. within Five (05)</p> <p>Item 5: 200MVA, 220/100/22kV ICT [500000408] Commencement/Completion: 1 No. within Six (06) Months from the Date of LoA</p> <p>Item 6: 100MVA, 220/100kV ICT [500000365] Commencement/Completion: 1 No. within Six (06) Months from the Date of LoA</p> <p>Item 7: 25MVA, 220/22kV Power Transformer [500000358] Commencement/Completion: 1 No. within Five (05) Months from the Date of LoA</p> <p>Item 8: 50MVA, 100/22kV Power Transformer [500017981] Commencement/Completion: 1 No. within Five (05) Months from the Date of LoA</p> <p>Item 9: 25MVA, 220/33kV Power Transformer [500000361] Commencement/Completion: 1 No. within Five (05) Months from the Date of LoA</p> <p>Item 10:50MVA, 132-110/ 33kV Power Transformer [500017983] Commencement: 1 No. within Five (05) Months from the Date of LoA Completion: @ 2 Nos. per Month thereafter</p> <p>Item 11:25MVA, 132-110/11kV Power Transformer [500000348] Commencement/Completion: 1 No. within Five (05) Months from the Date of LoA</p> <p>Item 12:50MVA, 132/33kV Power Transformer [500017982] Commencement: 1 No. within Five (05) Months from the Date of LoA Completion: @ 2 Nos. per Month thereafter</p> <p>Item 13:50MVA, 220/33kV Power Transformer [500017985] Commencement: 1 No. within Five (05) Months from the Date of LoA</p>	<p>We are keen to quote for 100MVA and 200MVA transformers We have studied the tender carefully and have observation that the delivery requirements of MSETCL is very short i.e. commence 6 month from LOA and completion 1nos /month thereafter. Since manufacturing of Power Transformers of 100MVA and 200MVA ratings involves procurement actions and manufacturing cycle,by adhering to highest quality standards to give world class product which will continue in operations for years after commissioning. Considering huge demand for transformers at present from different state & central utilities and private sector.Considering present shop loading,we request MSETCL to consider delivery of commence 12 months from LOA and completion 1nos/month thereafter.</p> <p>Delivery should be considered from date of receipt of final drawing approval.</p> <p>For 200 MVA Transformers Our delivery requirement is Commencement in 10 months and supply @ 1 number per month thereafter.</p> <p>We would request you to kindly consider the delivery schedule as mentioned below for supply of ICTs and Power transformers considering the present lead for procurement of major raw materials like (CRGO,Copper,Insulation,Oil etc.) and brought out components like OLTC,Bushings etc.</p> <p>Item1: 200MVA,220/132/11KV ICT; Item 5: 200MVA,220/100/22KV ICT; Item 6: 100MVA,220/100KV ICT; Item 15: 200MVA,220/110/11KV.3φ ICT; Item 16: 100MVA,220/33/33KV,3-Wdg.Power Transformer; Item 17: 100MVA,220/22/22KV,3-Wdg.Power Transformer; Commencement: 1 No. within Six (06) Months from the Date of Drawing approval Completion: @ 2 No. per Month thereafter</p>	<p align="center">NO CHANGE</p>

Annexure-A
Clarifications on Pre- Bid Queries-I

Sr.No.	Reference	As per Tender document	Pre- Bid Query of Bidder	MSETCL's Clarifications
1	2	3	4	5
		<p>Completion: @ 2 Nos. per Month thereafter</p> <p>Item 14:50MVA, 132/22kV Power Transformer [500017778] Commencement/Completion: 1 No. within Five (05) Months from the Date of LoA</p> <p>Item 15:200MVA, 220/110/11kV, 3Ø ICT [500024125] Commencement/Completion: 1 No. within Six (06) Months from the Date of LoA</p> <p>Item 16:100MVA, 220/33/33kV, 3-Wdg. Power Transformer [500017980] Commencement: 1 No. within Six (06) Months from the Date of LoA Completion: @ 1 No. per Month thereafter</p> <p>Item 17: 100MVA, 220/22/22kV, 3-Wdg. Power Transformer [500000359] Commencement: 1 No. within Six (06) Months from the Date of LoA Completion: @ 1 No. per Month thereafter</p> <p>Item 18: 25MVA, 110/11kV Power Transformer [500029034] Commencement: 1 No. within Five (05) Months from the Date of LoA Completion: @ 1 No. per Month thereafter</p> <p>Item 19: 25MVA, 132/11kV Power Transformer [500029033] Commencement: 1 No. within Five (05) Months from the Date of LoA Completion: @ 2 Nos. per Month thereafter</p> <p>The Contractual Delivery Period shall Commence from the Date of issue of Letter of Award.</p>	<p>As subject tender have 15-16 ratings of Power Transformers/ICT's and delivery commencement period for all the rating of Power Transformer is same so it is not possible to commence delivery for all rating of Power Transformer at same time so we request you to amend the delivery schedule to 7-8 months instead of 5 months.</p> <p>Delivery Time For the 220KV Class Transformers (Various MVAs like 200,100,50,25) kindly consider commencement period as 12 months from the date of LOA.</p> <p>Delivery Time For the 132KV Class Transformers (Various MVAs like 50,25) kindly consider commencement period as 10 months from the date of LOA.</p> <p>Delivery Time For the 110 & 100KV Class Transformers (Various MVAs like 50,25) kindly consider commencement period as 9 months from the date of LOA.</p> <p>We would like to inform that most of supplier have increased raw Material lead time of supply of Major Raw materials (CRGO, Insulation etc.,). Considering receipt of raw materials and manufacturing the transformer, we request you to kindly consider our below delivery in the subject tender. Item 1: 200 MVA, 220/ 132/ 11 kV ICT Commencement: 1 No. Transformer within Ten (10) months from the date of issue of LOA and Completion: @ One (1) numbers per month thereafter.</p> <p>Item 4: 50 MVA, 220/ 22 kV Power Transformer Commencement: 1 No. Transformer within Eight (8) months from the date of issue of LOA and Completion: @ Two (2) numbers per month thereafter.</p> <p>Item 12: 50 MVA, 132/ 33 kV Power Transformer Commencement: 1 No. Transformer within Eight (8) months from the date of issue of LOA and Completion: @ Two (2) numbers per month thereafter.</p>	

Annexure-A
Clarifications on Pre- Bid Queries-I

Sr.No.	Reference	As per Tender document	Pre- Bid Query of Bidder	MSETCL's Clarifications
1	2	3	4	5
			<p>Item 13: 50 MVA, 220/33 kV Power Transformer Commencement: 1 No. Transformer within Eight (8) months from the date of issue of LOA and Completion: @ Two (2) numbers per month thereafter.</p> <p>Item 19: 50 MVA, 132 / 11 kV Power Transformer Commencement: 1 No. Transformer within Eight (8) months from the date of issue of LOA and Completion: @ Two (2) numbers per month thereafter</p>	
2	<u>Technical Specification</u> Clause No. 7.0 (III)	MSETCL will appoint third party inspector from CPRI/ERDA along with MSETCL representative for inspection/testing at manufacturer's works. The third party inspection will be carried out with the ERDA/CPRI equipments.	Also as per tender specification final inspection to be carried by third party with their equipment's. As ERDA have only 2 mobile testing bench there will be difficulty in conducting final inspection timely for Power Transformers due to assorted rating of Power Transformer.	NO CHANGE
3	<u>Section-III</u> Clause No. 8.0	MSETCL shall not grant any Extension to the Due Date of Submission of the Tender beyond the Original Schedule.	Also tender have 15-16 ratings of power transformer we need more time to prepare technical bid so we also request you to extend the tender due by 15 days,	NO CHANGE
4	<u>Technical Specification</u> Clause no. 9.0	PERFORMANCE GUARANTEE: The transformer offered shall be guaranteed for satisfactory performance for a period of 120 months from the date of receipt of complete equipment at destination store/site in good condition, or 114 months from the date of satisfactory commissioning of equipment, whichever is earlier.	<p>We would like to inform you that Transformer industries are facing difficulty in getting raw materials due to high demand and low supply and all our sub vendors offering warranty for their product 2 to 3 years only. In this regards, it is not feasible to provide warranty 120 months from the date of receipt of complete equipment at destination store / site in good condition, or 114 months from the date of satisfactory commissioning of Equipment, whichever is earlier for the Power Transformers as our sub vendors will not accept this clause.</p> <p>However, Keeping in view of our continuous good business relation with M/ s. MSETCL, we can offer guarantee period '66 Months from the date supply of material at site or 60 months from the date of commissioning, whichever is earlier'.</p> <p>We request your kind selves to accept our above warranty term, which enable us to participate this tender.</p>	NO CHANGE

Annexure-A
Clarifications on Pre- Bid Queries-I

Sr.No.	Reference	As per Tender document	Pre- Bid Query of Bidder	MSETCL's Clarifications
1	2	3	4	5
			<p>We wish to clarify that in a product like power transformer - the design, material and manufacturing defects, if any, will normally surface out within 12 to 18 months from commissioning. However we are agreeable for the guarantee period as under -</p> <p>The Transformer offered shall be guaranteed for satisfactory performance for a period of 60 months from the date of receipt of complete equipment at destination store/ site in good condition, or 54 months from the date of satisfactory commissioning of equipment, whichever is earlier. (As per previous Performance Guarantee clause of MSETCL).</p> <p>Warranty offered- maximum 5 years.</p> <p>We request you to kindly accept the Performance BG Period as 5 Years in place of 10 years from the date of Supply.</p> <p>As per tender specification warranty period of Power Transformer/ICT's is 10 years due to which prices of Power Transformer will be escalated by 35-40% and in tender budget consideration for Power Transformer as per Old specification i.e. for 5 year warranty period so we request you to enhance the same by 35-40%.</p>	
5	a. ANNEXURE- 'E' PRICE VARIATION CLAUSE FOR POWER TRANSFORM ERS AND REACTORS COMPLETE WITH ALL ACCESSARIE S AND COMPONENT S OF VOLTAGE ABOVE 33KV AND UP TO 400KV	<p>a. Co = Price of CC copper rods (refer notes) This price is as applicable for the month, ONE month prior to : a) the date of Placement of Letter of Award OR b) Four (04) Months after Published Date of Opening (Including Extension, if any) of Techno-Commercial Bid, whichever is earlier.</p> <p>ESo = Price of CRGO Electrical Steel Lamination (refer note) This price is as applicable for the month, ONE month prior to : a) the date of Placement of Letter of Award OR b) Four (04) Months after Published Date of Opening (Including Extension, if any) of Techno-Commercial Bid, whichever is earlier.</p> <p>ISo = Average price of steel Plates 10 mm thick (refer notes) This price is as applicable for the month, ONE month prior to : a) the date of Placement of Letter of Award</p>	<p>a. We request you to kindly to accept the IEEMA price variation clause currently applicable for this tender , which is reproduced herewith for your ready reference.</p> <p>Co = Price of CC copper rods (refer notes) This price is as applicable for the month, ONE month prior to the date of tendering.</p> <p>ESo = Price of CRGO Electrical Steel Lamination (refer note) This price is as applicable for the month, ONE months prior to the date of tendering.</p> <p>ISo = Average price of steel Plates 10 mm thick (refer notes) This price is as applicable for the month, ONE month prior to the date of tendering.</p> <p>IMo = Price of Insulating Materials (refer notes) This price is as applicable for the month, ONE months prior to the date of tendering.</p>	NO CHANGE

Annexure-A
Clarifications on Pre- Bid Queries-I

Sr.No.	Reference	As per Tender document	Pre- Bid Query of Bidder	MSETCL's Clarifications
1	2	3	4	5
	<p>TO BE SUPPLIED AGAINST DOMESTIC CONTRACTS</p>	<p>OR b) Four (04) Months after Published Date of Opening (Including Extension, if any) of Techno-Commercial Bid, whichever is earlier.</p> <p>IMo = Price of Insulating Materials (refer notes) This price is as applicable for the month, ONE month prior to : a) the date of Placement of Letter of Award OR b) Four (04) Months after Published Date of Opening (Including Extension, if any) of Techno-Commercial Bid, whichever is earlier.</p> <p>TOo = Price of Transformer Oil (refer notes) This price is as applicable for the month, ONE month prior to : a) the date of Placement of Letter of Award OR b) Four (04) Months after Published Date of Opening (Including Extension, if any) of Techno-Commercial Bid, whichever is earlier.</p> <p>Wo = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2016 = 100) This Index Number is as applicable for the month, THREE months prior to : a) the date of Placement of Letter of Award OR b) Four (04) Months after Published Date of Opening (Including Extension, if any) of Techno-Commercial Bid, whichever is earlier.</p> <p>b. A Ceiling / Capping of Twenty Percent (20%) on Positive Price Variation and no Ceiling / Capping on Negative Price Variation shall be applicable for the purpose of Payment of Price Variation as above.</p>	<p>TOo = Price of Transformer Oil (refer notes) This price is as applicable for the month, ONE month prior to the date of tendering.</p> <p>Wo = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2016 = 100) This index number is as applicable for the month, THREE months prior to the date of tendering.</p> <p>b. The price variation will be without any ceiling on its variation as per your earlier tenders</p> <p>PVC-should be without any ceiling.</p>	<p></p> <p>NO CHANGE</p>

Annexure-A
Clarifications on Pre- Bid Queries-I

Sr.No.	Reference	As per Tender document	Pre- Bid Query of Bidder	MSETCL's Clarifications
1	2	3	4	5
	<p><u>Section III</u> Clause No. 2 (e) Prices & Price Variation</p>	<p>A Ceiling / Capping of Twenty Percent (20%) on Positive Price Variation and no Ceiling / Capping on Negative Price Variation shall be applicable for the purpose of Payment of Price Variation as above.</p>		<p>NO CHANGE</p>
<p>6</p>	<p>Technical <u>Specification</u> Clause No. 6.0</p>	<p>Dynamic short circuit test: ‘MSETCL reserve right to carry out dynamic short circuit on any power transformer at CPRI/ ERDA. Supplier shall arrange to carry out the test, however MSETCL shall born the charges. If power transformer fails in dynamic short circuit test then entire slot/ supplied transformers shall be rejected. The supplier shall replace already supplied transformer at his risk & cost. The decision in this regard shall be binding on supplier. Deviation in this regard shall not be accepted’</p>	<p>We request you to kindly modify the existing clause as per below: Dynamic short circuit test: The tenderer shall furnish in his offer the calculations, to prove thermal ability of the Transformer to withstand short circuits of specified levels, in document form. The Successful tenderer shall be required to furnish detailed calculations to prove suitability of the transformer offered to withstand the dynamic mechanical forces, arising out of short circuits levels.</p>	<p>NO CHANGE</p>

Annexure-A
Clarifications on Pre- Bid Queries-I

Sr.No.	Reference	As per Tender document	Pre- Bid Query of Bidder	MSETCL's Clarifications
1	2	3	4	5
7	Section-I Clause No.1: Scope of Work	The scope of work under this tender is for design, engineering (wherever applicable), manufacture, inspection & testing before despatch, packing and supply of material /equipments as specified in Annexure-D/ Technical Specifications, at various destination sites / stores Centers of the Purchaser in Maharashtra.	We request you to provide destination/site details for consideration of transit charges at actuals and to conduct route survey to avoid difficulties/delays in the transportation as this large consignments involves complications like under passes, manoeuvring, railway shutdowns, ROW issues etc.	Details as per Schedule-I
8	Section-III Clause No.2 Prices & price Variation	The Tenderers are requested to quote these Prices on Price Variation basis as per the P. V. Formula enclosed i.e. Annexure-E. The Prices quoted shall be on Free Delivery by Road Transport to our various Stores /Sites anywhere in State of Maharashtra.		
9	General	Cables	All relevant cables from Transformer accessories/fittings to Individual Marshalling box of respective transformer shall be under Bidder scope.All other cables including Special cables from Transformer Individual Marshalling box to Common Marshalling Box and to Control room are not included in present scope of supply. Please confirm.	Shall be as per Technical Specification.
10	General	Civil works	Any Civil works or development works related to Augmentation inside substation shall not be in Bidder scope. Please confirm.	NO CHANGE

Sd/-
Chief Engineer (Trans. O&M)-I/C

Schedule-I

Material No.	Description	Quantity	Sub-Station	Zone
500000348	25MVA, 132-110/11kV Power Transformer	1	110kV Rethare S/stn	Karad
500000354	25MVA, 132/33kV Power Transformer	1	132kV Arni (Amravati)	Amravati
500000358	25MVA, 220/22kV Power Transformer	1	Emergency/ Critical Spare (Vashi)	Vashi
500000359	100MVA, 220/22-22kV Power Transformer	1	Emergency/ Critical Spare (Vashi)	Vashi
500000359	100MVA 220/22/22kV 3 wdg T/f	1	Pune Zone	Pune
500000361	25MVA, 220/33kV Power Transformer	1	220kV Bhokardan S/stn	CSN
500000365	100MVA, 220/100kV Power Transformer	1	Emergency/ Critical Spare (Vashi)	Vashi
500000371	200MVA 220/132/11kV Auto T/f	2	400kV Lonikand-II S/s (Pune)	Pune
500000371	200MVA 220/132/11kV Auto T/f	2	220kV Chakan-II S/s (Pune)	Pune
500000371	200MVA 220/132/11kV Auto T/f	2	220kV Alephata S/s (Pune)	Pune
500000371	200MVA 220/132/11kV Auto T/f	1	Nagpur Zone	Nagpur
500000371	200MVA 220/132/11kV Auto T/f	1	Nashik Zone	Nashik
500000408	200MVA, 220/100/22kV Power Transformer	1	Emergency/ Critical Spare (Vashi)	Vashi
500000410	25MVA 132-110/33kV Power T/f	1	110kV Kale S/stn (Karad)	Karad
500000410	25MVA 132-110/33kV Power T/f	1	110kV Kurundwad S/stn (Karad)	Karad
500017778	50MVA, 132/22kV Power Transformer	1	132kV Rahatani S/stn	Pune
500017980	100MVA, 220/33kV/33kV Power Transformer	1	220kV Shivajinagar S/stn	Nashik
500017980	100MVA 220/33/33kV 3 wdg T/f wt Ins. Oil	1	Chhatrapati Sambhajnagar Zone	CSN
500017981	50MVA, 100/22kV Power Transformer	1	Emergency/ Critical Spare (Vashi)	Vashi
500017982	50MVA 132/33kV Power T/f wt Ins. Oil	1	220kV Satana S/s	Nashik
500017982	50MVA, 132/33kV Power Transformer	1	132kV Ashti S/s (CSN)	CSN
500017982	50MVA, 132/33kV Power Transformer	1	132kV Udgir S/s (CSN)	CSN
500017982	50MVA, 132/33kV Power Transformer	1	132kV Vaijapur S/s (CSN)	CSN
500017982	50MVA, 132/33kV Power Transformer	1	132kV Mohol S/s (Pune)	Pune
500017982	50MVA 132/33kV Power T/f wt Ins. Oil	1	132kV Hingna-1 S/s (Nagpur)	Nagpur
500017982	50MVA 132/33kV Power T/f wt Ins. Oil	1	132kV Hingna-2 S/s (Nagpur)	Nagpur
500017982	50MVA 132/33kV Power T/f wt Ins. Oil	2	132kV Bharsingi S/s (Nagpur)	Nagpur
500017982	50MVA, 132/33kV Power Transformer	2	132kV Patur S/stn	Amravati
500017982	50MVA, 132/33kV Power Transformer	2	132kV Murtizapur S/stn	Amravati
500017982	50MVA, 132/33kV Power Transformer	2	132kV Ghansawangi S/stn	CSN
500017982	50MVA, 132/33kV Power Transformer	1	132kV Chikalthana S/stn	CSN
500017982	50MVA, 132/33kV Power Transformer	1	132kV Jintur S/stn	CSN
500017982	50MVA, 132/33kV Power Transformer	1	132kV Paithan S/stn	CSN
500017982	50MVA, 132/33kV Power Transformer	2	132kV Ardhapur S/stn	CSN

500000348	25MVA, 132-110/11kV Power Transformer	1	110kV Rethare S/stn	Karad
500017982	50MVA, 132/33kV Power Transformer	1	132kV Soygaon S/stn	CSN
500017982	50MVA, 132/33kV Power Transformer	1	132kV Sillod S/stn	CSN
500017982	50MVA, 132/33kV Power Transformer	2	132kV Mantha S/stn	CSN
500017982	50MVA, 132/33kV Power Transformer	2	132kV Umari S/stn	CSN
500017982	50MVA, 132/33kV Power Transformer	1	132kV Dahiwadi S/stn	Karad
500017982	50MVA, 132/33kV Power Transformer	1	132kV Besa S/stn	Nagpur
500017982	50MVA, 132/33kV Power Transformer	1	132kV Mankapur S/stn	Nagpur
500017982	50MVA, 132/33kV Power Transformer	1	132kV Pardi S/stn	Nagpur
500017982	50MVA, 132/33kV Power Transformer	1	132kV Savda S/stn	Nashik
500017982	50MVA, 132/33kV Power Transformer	2	132kV Parola S/stn	Nashik
500017982	50MVA, 132/33kV Power Transformer	2	132kV Bodwad S/stn	Nashik
500017982	50MVA, 132/33kV Power Transformer	1	132kV New MIDC Jalgaon S/s	Nashik
500017982	50 MVA, 132/33kV Power Transformer	2	132kV Dharangaon S/stn	Nashik
500017982	50MVA, 132/33kV Power Transformer	2	132kV Nimbhora S/stn	Nashik
500017982	50MVA, 132/33kV Power Transformer	2	132kV ECR Deepnagar S/stn	Nashik
500017982	50MVA, 132/33kV Power Transformer	2	132kV Karajgi S/stn	Pune
500017983	50MVA 132-110/33kV Power T/f wt Ins.Oil	1	110kV Jaysingpur S/stn (Karad)	Karad
500017983	50MVA, 132-110/33kV Power Transformer	1	110kV Kavathe Mahankal S/s	Karad
500017983	50MVA, 132-110/33kV Power Transformer	1	110kV Sankh S/stn	Karad
500017984	50MVA, 220/22kV Power Transformer	1	132kV Vasai S/s (Vashi)	Vashi
500017984	50MVA, 220/22kV Power Transformer	1	400kV Chakan S/stn	Pune
500017984	50MVA, 220/22kV Power Transformer	1	220kV Pirangute S/stn	Pune
500017984	50MVA, 220/22kV Power Transformer	1	220kV Ranjangaon S/stn	Pune
500017985	50MVA 220/33kV Power T/f wt Ins. Oil	1	220kV Sayane S/s	Nashik
500017985	50MVA 220/33kV Power T/f wt Ins. Oil	1	220kV Lote S/stn (Karad)	Karad
500017985	50MVA 220/33kV Power T/f wt Ins. Oil	1	220kV Halkarni S/stn (Karad)	Karad
500017985	50MVA 220/33kV Power T/f wt Ins. Oil	1	220kV Kekatnimbhora S/stn (Nashik)	Nashik
500017985	50MVA 220/33kV Power T/f wt Ins. Oil	2	220kV Kaulewada S/stn (Nagpur)	Nagpur
500017985	50MVA, 220/33kV Power Transformer	2	220kV Belapur S/Stn	Amravati
500017985	50MVA, 220/33kV Power Transformer	1	220kV Chitegaon S/stn	CSN
500017985	50MVA, 220/33kV Power Transformer	1	220kV Shendra S/stn	CSN
500017985	50MVA 220/33kV Power T/f wt Ins. Oil	2	220kV Padegaon S/stn	CSN
500017985	50MVA, 220/33kV Power Transformer	1	220kV Krushnoor S/stn	CSN
500017985	50MVA, 220/33kV Power Transformer	2	220kV Bhokar S/stn	CSN
500017985	50MVA, 220/33kV Power Transformer	1	220kV Dhule S/stn	Nashik

500000348	25MVA, 132-110/11kV Power Transformer	1	110kV Rethare S/stn	Karad
500017985	50MVA, 220/33kV Power Transformer	1	220kV Dondaicha S/stn	Nashik
500017985	50MVA, 220/33kV Power Transformer	2	220kV Bambhori S/stn	Nashik
500017985	50MVA, 220/33kV Power Transformer	1	220kV Bridgestone S/stn	Pune
500024125	200MVA 220/110/11kV 3Ø ICT wt Insu. Oil	1	Karad Zone	Karad
500029033	25MVA 132/11kV Power T/f wt Insu. Oil	2	Amravati Zone	Amravati
500029033	25MVA 132/11kV Power T/f wt Insu. Oil	2	Chh. Sambhajinagar Zone	CSN
500029033	25MVA 132/11kV Power T/f wt Insu. Oil	2	Nagpur Zone	Nagpur
500029033	25MVA 132/11kV Power T/f wt Insu. Oil	2	Nashik Zone	Nashik
500029033	25MVA 132/11kV Power T/f wt Insu. Oil	2	Pune Zone	Pune
500029033	25MVA 132/11kV Power T/f wt Insu. Oil	2	Vashi Zone	Vashi
500029034	25MVA 110/11kV Power T/f wt Insu. Oil	2	Karad Zone	Karad