Tender No. : **DID6839L16/L3**
Tender Date : **04.04.2015**
Bid Closing On : **07.05.2015 at 13:00 hrs.(IST)**
Bid Opening On : **07.05.2015 at 13:00 hrs.(IST)**

Tender issued to following parties only:

Slno	V_Code	Vendor Name	City/Country
1	200310	ASSAM ELECTRICALS	TINSUKIA
2	203062	GLOCON	TINSUKIA
3	203799	CROMPTON GREAVES LTD	GUWAHATI
4	204333	ABB LIMITED	KOLKATA
5	205024	RAYCHEM RPG PRIVATE LIMITED	KOLKATA
6	205062	POWER GRID ASSOCIATES	DULIAJAN
7	208455	PETE HAMMOND POWER SOLUTION PVT LTD	HYDERABAD
8	208915	KAATSKILL ENGG WORKS	TINSUKIA
9	407116	VOLTAMP TRANSFORMERS LIMITED	VADODARA

ANNEXURE : II

Other than the vendors to whom the enquiry has been issued, interested vendors who wish to participate in the tender may apply with proper credentials and other relevant details so as to reach Head-Materials, Oil India Limited, P.O. Duliajan, Dist. Dibrugarh, Assam – 786602 (e-mail : material@oilindia.in, Fax : 0374-2800533) within 10 days of publication of the tender on OIL's website.

The vendors must fulfill the following conditions:

i) **The party should have 03 (three) years' experience as on the Bid closing date for the same item.**

ii) **The party should have received one order for at least 50% quantity in last 03 (three) years' (as on the Bid closing date) for the item from any reputed firm.**

iii) **Annual turnover of the firm in any of the last 3 (three) financial years or current financial year should be more than Rs.13.00 lakh.**

NOTE:

a. **The applicant must meet the above qualifying criteria for which documentary evidence should be enclosed by the applicant with the application without which tender document shall not be issued.**

b. **Relevant documents in support of experience, last order and annual turnover must be submitted along with the application.**

c. **Application without complete supporting document will not be considered.**

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OIL INDIA LIMITED
(A Govt. of India Enterprise)
P.O. Duliajan-786602, Assam
E-mail:material@oilindia.in, **Fax No.**91-374-2800533

Tender No. & Date : DID6839L16/L3 04.04.2015

Bid Security Amount : INR 0.00 OR USD 0.00
(or equivalent Amount in any currency)

Bidding Type : Single Bid (Composite Bid)

Bid Closing On : 07.05.2015 at 13:00 hrs. (IST)
Bid Opening On : 07.05.2015 at 13:00 hrs. (IST)

Performance Guarantee : Applicable

OIL INDIA LIMITED invites Limited tenders for items detailed below:

Item No./ Mat. Code	Material Description	Quantity	UOM
10 99079131	"**WINDING OF DRY TYPE 500KVA TRANSFORMER,11KV/433V** **(A). SCOPE: Winding of dry type 500KVA, 11KV/433V, transformer.** **(B). STANDARDS:** **The latest revisions of the following Codes and Standards listed shall be applicable for the Equipment / materials covered in this specification.** **IS 11171 & 2026: Dry type power transformer** **IS 2099: Bushing** **IS 2705: Current Transformer.** **IEC 60529: Classification of degree of protection provided by enclosures.** **(C). GENERAL CONSTRUCTION: General construction for all necessary MS parts, class of insulation, grade of core, CRCA sheet of enclosure, internal & external surfaces of enclosure and painting of body should be as per existing transformer.** **(D). TECHNICAL RATING: As per existing transformer mentioned in annexure-I in 'A'** **(E). TECHNICAL SPECIFICATION OF WINDING:** **The winding material should be high conductivity 99.99% electrolytic grade copper. The insulation should be Cast Resin type, Class-F. Conductor should have thermally upgraded paper (Nomex) insulation reinforced with fiber glass. The coil assembly is to be impregnated & cast under vacuum with epoxy resin for achieving non-hygroscopic, acid & alkali resistant insulation. The complete winding should have smooth cylindrical finish after impregnation to ensure high mechanical strength. The thickness of resin should be uniform. The insulation should be self- extinguishing type. Mounting of the winding to the transformer case shall be of vibration resistance pad placed uniformly in all direction.** **(i) The windings/connection of transformer shall be braced to withstand shocks, which may occur during transport or due to short circuit, repeated peak loads and other transient conditions during service.** **(ii) Windings shall be subjected to a shrinkage treatment before final assembly so that no further shrinkage occurs during service.** **(iii) The conductors shall be transposed at sufficient intervals in order to minimise eddy currents and** **equalize the distribution of currents and temperature along the**	2	NO

Tender No. & Date : DID6839L16/L3 04.04.2015

Item No./ Mat. Code	Material Description	Quantity	UOM
	windings. **(iv) Windings shall not have sharp bends which might damage insulation and /or produce high dielectric stresses.** **(v) Coils shall be supported using dried and high pressure compressed wedge type insulation spacers at frequent intervals.** **(vi) All threaded/bolted connections shall be locked. Leads from the winding to the terminal board and** **bushings shall be rigidly supported to prevent injury during short circuits/vibration.** **(vii) Permanent current carrying joints in the windings and** leads shall be welded or brazed. **(vii) Digital Winding temperature scanner connected with three nos. RTDs, one each for each LV winding, should be provided in a metallic enclosure (Marshalling box) that is mounted on the main enclosure. The scanner shall have potential free NO contacts to provide indication, alarm & trip contacts. Two sets of additional contacts to be provided are to be connected to 2 nos cooling fans so that they start if the temp rises above a set value say above 75 degree. Winding temperature indicator should show maximum temperature attained. The RTDs should be properly wired up to the scanner terminals. Temperature setting of each contact shall be independently adjustable at site.** **(F). ACCESSORIES: All existing accessories to be remain unchanged as per the existing transformer given in annexure-I** **(G). SPECIFICATIONS: Existing transformer 500kVA, 11kV/433 Volts, 3 Phases, 50 Hz, Double winding, copper conductor, Dry type, natural air cooled/force cooled distribution transformer for indoor installation & as per specifications mentioned in annexure-I in ' B':** **(H). GENERAL REQUIREMENTS: The transformer with the new winding shall have the detail as per annexure-I mentioned in 'D'.** **(I). FITTINGS: Existing fittings of the transformer mentioned in annexure-I in 'E' to be remained same:** **(J).TEST: Transformer should be type as well as special tested. Detail of required tests are mentioned in annexure-I in 'F'** **(K). GENERAL TERMS AND CONDITIONS: As mentioned in annexure-I in 'G'"**		
	Installation and Commissioning at site		
10	Installation and Commissioning **Installation, Checking, Testing and Commissioning at Site as per OIL's satisfactory.**	2	AU

Standard Notes: A.1 Other than the vendors to whom the enquiry has been issued, interested vendors who wish to participate in the tender may apply with proper credentials and other relevant details so as to reach Head-Materials, Oil India Limited, P.O. Duliajan, Dist. Dibrugarh, Assam - 786602 (e-mail : ranjanbarman@oilindia.in, Fax : 0374-2800533) within 10 days of publication of the tender on OIL's website.

B.(1) VALIDITY : Your offer must be valid for 75 days from the date of bid opening. Offer with inadequate validity will be rejected.

(2) The offer should be submitted in Duplicate.

(3) Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set-off against any claim of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of a sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited).

(4) In the event you authorize your dealer/stockist/channel partner to quote on your behalf, the dealer/stockist/channel partner while submitting bid should mention on the body of the envelope that they are submitting bid on your behalf.

In the event the dealer/stockist/channel partner do not mention the name of their OEM/principal on the body of the envelope, the offer shall be treated as unsolicited offer and will not be considered for opening.

The dealer/stockist/channel partner should take note of above while submitting bid on behalf of their OEM/principal.

(5) For order with F.O.R. Destination term, 100% payment against despatch documents will not be entertained. In this regards please refer payment terms in ANNEXURE-MM/TENDER/LP/01/06.

(6) To evaluate the inter-se ranking of the offers, Assam Entry Tax on purchase value will be loaded as per prevailing Government of Assam Guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their bids.

(7) Bidder must mention page no./nos. in every pages of their offer.
(8) Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.
(9)Bidder should clearly mention their name and address on the outside of the envelope containing their offer.

(10) In the event of receipt of only a single offer against the tender within B.C.date, OIL reserves the right to extend the B.C. date as deemed fit by the company. During the extended **period, the bidders who have already submitted the bids on or before the original B.C date, shall not be permitted to revise their quotation.**

Special Notes : 1.Existing defective transformer windings of all the three HT & LT phases to be replaced with new identical ones under buyback policy. The defective winding can be retained by the party.The parties should quote for buy back separately without which offer will not be considered.
2.To & fro transportation of transformer to the party's workshop will be arranged by OIL.
3.Detail of defective transformer whose replacement is required is given in attached annexure-I.
4.The offer without buy back of old of existing transformer windings will not be considered for evaluation.
5)Bidder should submit test certificates, technical catalogues / literatures along with the offer.
6.The bidder should be manufacturer or authorized dealer of manufacturer of Dry Type Transformer. In case of authorized dealer, valid dealership/authorisation certificate must be submit along with bid.
7.The bidder should have successfully completed repairing of dry type transformer of

minimum 1 no of 500kva dry type transformer including replacement of complete winding in any State/ central Govt. /Govt. PSU/Public Limited Companies during the last 5 years.Performance/completion certificates/P.O.copies with invoices of the job carried out shall be enclosed with the offer.

8.The copy of the type test and special test certificates carried out on similar dry type HT Transformer should be furnished along with the offer.

9.The party must inform OIL atleast 15 days prior to dispatch for the inspection of repaired transformers at their premises/workshop.

10.Testing and commissioning of repaired transformers at site is the scope of party. So, bidder should quote seperately for the same.

11. Material(winding) should be guaranteed for minimum one year period from the date of commissioning of transformer at site.

12.Offer must be as per the specification mentioned in annexure-I. Detail of defective transformers whose replacement is required are given in annexure-I.

13. The party shall furnish the document details of their infra structure facilities for replacement of windings and testing facility with the offer.

14.The bidder should quote the price of new winding and buy back value of defective winding separately. The value of defective winding will be adjusted to the total price value of new winding.

15.PBG is applicable against this tender.
Successful bidder will be required to furnish a performance security @10% of the order value. For details please ref. clause no.7.0 of General Terms and condition.

16.Bidder has to quote their price in the following price schdule for evalution of their offer.

i)Price of replacement winding:
ii)Excise Duty :
iii)Sales Tax :
iv)Buy back value of defective winding:
v)Intallation & commissoning :
vi)service Tax :
vii)Any other charge:

Annexure-I

Details of Existing Transformer

(A). RATING: As per existing transformer details given in (I) & (J).
(B). SPECIFICATION: Existing transformer 500kVA, 11kV/433 Volts, 3 Phases, 50 Hz, Double winding, copper conductor, Dry type, natural air cooled distribution transformer for indoor installation & as per following specifications:
(a). GENERAL:
(i). Applicable Indian Standard: IS: 11171 and IS: 2026 with latest amendments.
(ii). Service duty: Continuous.
(iii). Installation: Indoor.
(iv). Auxiliary power supply: 230V AC ± 10 %
(v). Control Voltage: 230V AC ± 10 %
(b). SITE CONDITION:
(i). Maximum Ambient air temperature: 40ºC
(ii). Minimum Ambient air temperature: 6.0ºC
(iii). Maximum humidity at site (at 40 º C): 98 %
(iv). surrounding atmospheric condition: Humid
(v). Site Altitude: 120 mtrs.
(vi). Seismic design co-efficient: As per IS: 1893.
(vii). Rainfall: 200 cm (annually.)
(c). RATING AND GENERAL DATA:
(i)). Rating: 500kVA
(ii). No. of phases: 3.
(iii). Frequency: 50 ± 3 %
(iv). Type of Insulation: Class-F. Temp. Rise-Designed to withstand 120 degree º C
(v). Partial discharge: As per IS-11171, IS-6209.
(vi). Type of cooling: AN
(vii). Installation: Indoor
(viii). Vector group: Dyn 11
(ix). Percentage impedance: 5.0%. Tolerance as per IS-2026.
(x). Nominal system voltage: 11kV/ 433 Volts
(xi). Type of neutral earthing: Solidly grounded Neutral.
(xii). Symmetrical short circuit withstands capacity: As per IS-11171.
(xiii). Rated short duration power frequency withstands voltage: As per IS 11171.
(xiv). Rated lightning impulses withstand voltage: As per IS 11171 (List-2). As Vacuum circuit breaker will be used as incomer to the transformer, BIL voltage shall be 95KV.
(xv). Transformer sound level should not exceed 60 db.
(xvi). Water absorption (24hrs @25C): less than 0.05% (superior insulation, longer life)
(xvii).Chemical Resistance: Painting must have excellent performance rating.
(xviii). Dielectric Strength: Minimum of 3200 volts/mil dry (for superior stress, Over Voltage tolerance)
(xix). Dissipation Factor: Max. 0.02 @25 degree C to reduce aging of insulation.
(d). TAP CHANGER: Tap changer must be as per the existing one.
(e). TERMINAL ARRAGEMENT:
HV winding line end: Cable box
LV winding line end: Cable box
One neutral bushing outside the cable box shall be provided for grounding.

(f). BUSHING:
Made from non-hygroscopic epoxy resin cast material suitable for site condition & conforming to IS-2099.
(g). CABLE BOX:
(i) HV cable box should be suitable for termination of 1 nos 3 Cx240 sq. mm XLPE armoured, Aluminum conductor cable with heat shrink type cable termination. The bottom plate shall be detachable type and 1 nos. heavy duty single compression cable glands suitable for 3Cx240 sqmm XLPE armoured cables shall be fitted. Cable Box standard should be as per IP-54.
(ii) LV cable box should have brought out electro-tinned copper bus bars of suitable rating & size for termination of 4 nos. of 3½ x 240 sq. mm PVC/XLPE Aluminum cables. The cable box should have detachable cable gland plate fitted with suitable heavy duty single compression cable glands for the cables mentioned above. Support bar in LV cable box should be made up of fiber glass. Cable Box standard should be as per IP-54.
(iii) HT and LT cable boxes shall be button entry type and Bottom detachable gland plates made from 3.0mm thick MSCR sheet shall be provided for all cable entries, suitable cable gland shall be provided for the above cables.
(iv) Terminals should be marked as per IS: 2026 -1977.
(h). TRANSFORMER CORE: Core should be as per the existing one. The detail of existing core specification is given below:
(i) Material: High grade cold rolled grain oriented silicon steel.
(ii) Structure: Grounded and sharp corners avoided.
(iii) Lamination: Treated and coated with suitable insulations. The core limbs & yokes are branded by means of resin glass tape to reduce vibration & noise.
(i). TRANSFORMER WINDING:
The winding material should be high conductivity 99.99% electrolytic grade copper. The insulation should be Cast Resin type, Class-F. Conductor should have thermally upgraded paper (Nomex) insulation reinforced with fiber glass. The coil assembly is to be impregnated & cast under vacuum with epoxy resin for achieving non-hygroscopic, acid & alkali resistant insulation. The complete winding should have smooth cylindrical finish after impregnation to ensure high mechanical strength. The thickness of resin should be uniform. The insulation should be self- extinguishing type. Mounting of the winding to the transformer case shall be of vibration resistance pad placed uniformly in all direction.
(i) The windings/connection of transformer shall be braced to withstand shocks, which may occur during transport or due to short circuit, repeated peak loads and other transient conditions during service.
(ii) Windings shall be subjected to a shrinkage treatment before final assembly so that no further shrinkage occurs during service.
(iii) The conductors shall be transposed at sufficient intervals in order to minimise eddy currents and equalize the distribution of currents and temperature along the windings.
(iv) Windings shall not have sharp bends which might damage insulation and /or produce high dielectric stresses.
(v) Coils shall be supported using dried and high pressure compressed wedge type insulation spacers at frequent intervals.
(vi) All threaded/bolted connections shall be locked. Leads from the winding to the terminal board and bushings shall be rigidly supported to prevent injury during short circuits/vibration.
(vii) Permanent current carrying joints in the windings and leads shall be welded or brazed.
(viii) Digital Winding temperature scanner connected with three nos. RTDs, one each for each LV winding, should be provided in a metallic enclosure (Marshalling box) that is mounted on the main

enclosure. The scanner shall have potential free NO contacts to provide indication, alarm & trip contacts. Two sets of additional contacts to be provided to connect 2 nos cooling fans so that they start if the temp rises above a set value say above 120 degree. Winding temperature indicator should show maximum temperature attained. The RTDs should be properly wired up to the scanner terminals. Temperature setting of each contact shall be independently adjustable at site.
(j). ENCLOSURE: Existing enclosure type should be same. A detail of existing enclosure type is given below:
Enclosure for transformer shall be fabricated of minimum 14 SWG gauge properly cleaned degreased and painted as per manufacturer's standard practice. The core & winding assembly should be housed inside a sheet steel enclosure with removable inspection & tap changer covers. The enclosure should offer IP-23 protection as per IS-2147 and should have suitably designed louvers for circulation of cooling air. All the gaskets should be of neoprene rubber. All non-energized metallic parts of the transformer shall be grounded.
(k). EARTHING:
Earthing shall be as per IS-3043.All metal parts of the transformer with the exception of individual core laminations core bolts and associated individual clamping plates shall be earthed internally. Suitable arrangement shall be made for earthing of neutral externally.
(l). WIRING:
All internal wiring shall be done with 1.1kv grade fire retardant PVC insulated tinned copper multi stranded cable of standard size of 2.5sqmm with proper lugs. Ring lugs shall be used at all connections such as CTs connection etc. All terminal strips shall have minimum 2 nos. spare terminals to accommodate any modification required during commissioning /operation. All terminals shall be accessible for testing and troubleshooting/maintenance. All cable shall have ferules.
(m). NAME PLATE: The name plate of the existing transformer to be modified as per data after replacement of winding.
(n). LIFTING HOOK: Existing provision of suitable lifting hook to be remained same.
(o). LIST OF FITTNGS AND ACCESSORIES:
(i). HV bushings inside HV cable box: 3 nos. rated for 11kV.
(ii).LV bushings in side LV cable box: 4 nos. (3P+1N) rated 415 Volts
(iii). Outside LV cable box: 1 no. for grounding.
(iv). Digital Winding temperature scanner connected with 3 nos. of RTDs, one each for each LV winding.
(v). Earthing terminals: 2 nos for body earthing.
(vi). Jacking lugs.
(vii). Inspection cover: 2 nos. placed in opposite site
(viii). Base channels with bi-directional rollers: 2 nos.
(C). TECHNICAL SPECIFICATION OF WINDING:
The winding material should be high conductivity 99.99% electrolytic grade copper. The insulation should be Cast Resin type, Class-F. Conductor should have thermally upgraded paper (Nomex) insulation reinforced with fiber glass. The coil assembly is to be impregnated & cast under vacuum with epoxy resin for achieving non-hygroscopic, acid & alkali resistant insulation. The complete winding should have smooth cylindrical finish after impregnation to ensure high mechanical strength. The thickness of resin should be uniform. The insulation should be self- extinguishing type. Mounting of the winding to the transformer case shall be of vibration resistance pad placed uniformly in all direction.
(i) The windings/connection of transformer shall be braced to withstand shocks, which may occur during transport or due to short circuit, repeated peak loads and other transient conditions during service.
(ii) Windings shall be subjected to a shrinkage treatment before final assembly so that no further shrinkage occurs during service.

(iii) The conductors shall be transposed at sufficient intervals in order to minimise eddy currents and equalize the distribution of currents and temperature along the windings.
(iv) Windings shall not have sharp bends which might damage insulation and /or produce high dielectric stresses.
(v) Coils shall be supported using dried and high pressure compressed wedge type insulation spacers at frequent intervals.
(vi) All threaded/bolted connections shall be locked. Leads from the winding to the terminal board and bushings shall be rigidly supported to prevent injury during short circuits/vibration.
(vii) Permanent current carrying joints in the windings and leads shall be welded or brazed.
(vii) Digital Winding temperature scanner connected with three nos. RTDs, one each for each LV winding, should be provided in a metallic enclosure (Marshalling box) that is mounted on the main enclosure. The scanner shall have potential free NO contacts to provide indication, alarm & trip contacts. Two sets of additional contacts to be provided are to be connected to 2 nos cooling fans so that they start if the temp rises above a set value say above 75 degree. Winding temperature indicator should show maximum temperature attained. The RTDs should be properly wired up to the scanner terminals. Temperature setting of each contact shall be independently adjustable at site.
(D). GENERAL REQUIREMENTS: The transformer with the new winding shall have the detail as per annexure-I
mentioned in 'A'. following:
(1). Thermal and dynamic ability to withstand external short-circuit as per clause 9 of IS 2026 (Part I) 1977 and clause
5 of IS 11171-1985.
(2). Capacity and Rating: Continuous rating specified shall be irrespective of tapping position. Indoor transformers shall be suitable for IP-23 protection.
(3).Temperature Rise: The reference ambient temperatures assumed for the purpose of this specification are as follows:
(i) Maximum ambient air temperature 50 degree C.
(ii) Maximum daily average ambient air temperature 40 degree C.
(iii) Maximum yearly weighted average ambient temperature 32 degree C.
(iv) Minimum yearly weighted average ambient temperature (-) 5 degree C.
(v) Class of insulation-F.
(vi) The temperature rise limit at the above conditions and at the altitude not exceeding 1000 meters shall be as specified. If the site conditions indicated for a particular job is more severe than the referred ambient temperature mentioned above, the temperature rise above ambient shall be suitably scaled down such that the hot spot temperature shall not exceed the values for the reference conditions 120 degree C (F class insulation).
(4). Cooling: The transformer cooling shall be air and naturally cooled (AN).Additionally sufficient cooling fans shall be provided which will start automatically when the temperature exceeds 120 degree. (The temp shall be adjustable with a thermostat)
(5). Tap Changing Device: Preferred tapping range is +5% to -7.5% in 2.5% steps by means of off load tap changing links or tap switch. The device shall be provided on HV for HV Voltage to keep LV Voltage constant.
(6). Terminal Markings Connections: Relevant provisions of IS: 2026 (Part-IV)-1977 shall be applicable.
(7). Voltage Ratio: The transformer shall be suitable for a voltage ratio of 11 KV/433V
(8). Vector Group: The winding connections shall conform to vector group Dyn11.
(E). FITTING: Following existing fittings to be remained same:
(a) Off load type tap changing link or tap switch.
(b) RTD temperature controller.
(c) Lifting lugs for all transformers.

(d) Bi-directional /Unidirectional Rollers to be specified.
(e) Rating diagram and terminal marking plate for all transformers with OIL's PO No.
(f) Additional Neutral separately brought out on a bushing for earthing for all transformers.
(g) Earth terminals (2 Nos.) for body earthing.
(h) Operating spares-1 set.
(F). TEST:
I. TYPE TEST:
The transformer shall be type tested and following CPRI or any government approved laboratory type test certificates on similar transformer of specified rating should be furnished along with the offer. These type test certificates should not be more than 5 (five) years old on the date of bid opening. Offers without these type certificates may not be considered for evaluation. Type test shall constitute the followings:
(a) Measurement of winding resistance.
(b) Measurement of voltage ratio and check of voltage vector relationship.
(c)Measurement of impedance voltage, short circuit impedance and load loss.
(d)Measurement of no load loss and current
(e) Separate-source voltage withstand test
(f) Induced overvoltage withstand test
(g) Lightning impulse test
(h) Temperature-rise test and
(i) Short-circuit test
II. SPECIAL TESTS:
(i) Partial discharge test as per IS: 6209-1982 and with Appendix A of IS: 2026 (Part 3)-1981.
(ii) Measurement of acoustic sound.
(G).GENERAL TERMS AND CONDITIONS:
(i). Party should furnish all relevant technical particulars as per IS: 2026 (1977), Part-I along with the offer.
(ii). Bidder shall mention in their offer the minimum ventilation requirement of transformer room.
(iii). Bidder must indicate the storage procedure for the transformer in case the transformer is left un-energized.
(iv). List of installation & commissioning checks required for the transformer must be enclosed with the offer.
(v). Transformer winding shall be specially braced to withstand to thermal and mechanical stresses of harmonic current and voltage.
(H). DOCUMENTS TO BE SUBMITTED BY THE BIDDER:
(i). Manufacture's test certificates for replaced winding & its assemblies as required by IS-11171 with latest amendments should be submitted to us along with dispatch of the materials.
(ii). Party should get the detail transformer drawings approved from OIL prior to manufacturing of the transformer.
(iii). Bidder's shall fill up the technical data sheet as per format attached.
(I). Details of Existing Transformer No. 1
1. Capacity: 500 KVA
2. Voltage: HV: 11000 Volts
LV: 433 Volts
3. Amp: HV: 26.24 Amp
LV: 666.69 Amp.
4. Vector group: Dyn11
5. Transformer Sl.No. DT2949/01
6. Make: Crompton Greaves.
7. Total no. of tap: 5 nos
8. Temp. Class of Insulator: F

9. Guaranteed max. Temp. Rise of winding by resistance over ambient of 50 degree Celsius: 90 degree C
10. Insulation level: L1 65AC 28/L1-AC3
11. Taping range: 11550 to 11450 @span of 275V (up & down).
12. Diagram drg. No. RDM DT2949
13. Type of cooling: AN
14. Frequency: 50Hz
15. Impedance: 4.37%
16. Core & wdg.: 2000 kg
17. Total wtd. : 2500 kg
18. Year of Mfg.: 04/2011
19. Phase HV: 3
LV: 3
(J). Details of Existing Transformer No. 2
1. KVA : 500
2.Voltage, HV : 11000 Volts
LV : 433 Volts
3. Amp., HV : 26.24 Amp. ,
LV : 666.68 Amp.
4. Vector Group : Dyn11
5. Transformer Sl. No. : DT 1389/01
6. Make : Cromton Greaves
7. HV volts at Tap No. 3 : 11000 Volts
8. Total No. of Tap : 5 Nos.
9. Temp. Class of Insulator : F
10. Guaranteed Max. Temp. rise of Winding by Resistance : 90°C
11. Insulation Lavel = L1 75 AC 28 / L1 - AC3.
12. Diagram Drg. No. RDM DT 1389
13. Frequency. : 50 Hz
14. Type of cooling : AN
15. Impedance : 4.52 %
16. Core & Wdg. , Kg. : 1900
17. Total Wt. Kg. : 2400
18. Year of Mfg. : 07/2007
19. Phases HV : 3
LV: 3