

QUETTA ELECTRIC SUPPLY COMPANY



BIDDING DOCUMENT

Tender No. T-2035

FOR THE PROCUREMENT OF TRANSFORMER
RECLAMATION WORKSHOP EQUIPMENTS

M/S _____

MANAGER (MM)
QESCO, Quetta

SUMMARY OF CONTENTS

Subject	Page No
1. Invitation for Bid	03
2. Instructions to Bidder	04
3. Form of Bid and Schedule to Bid	15
4. Condition of Contract	21
5. Standard Form.	29
6. Specification	

INVITATION FOR BID

Date _____
Bid Reference No. _____

1. Only e-bids will be accepted , all the interested bidders are directed to apply through E-Pak Acquisition & Disposal System (E-PADS) portal online (<http://www.eprocure.gov.pk>) as per procedures laid down in the regulations of PPRA.
2. A complete set of bidding documents can be downloaded from E-PADS at (<http://www.eprocure.gov.pk>). The tender documents, containing detailed instruction / terms and conditions and specification , are available for registered bidders.
3. The prospective bidder shall submit sealed bid security amounting to **Rs. 925,940.00** valid for 120 days from the date of opening of tender, in the form of a CDR/ Bank Guarantee (Original Instrument) / from any scheduled bank of Pakistan , made out in favor of CEO QESCO Quetta & must reach to the office of Manager Material Management QESCO, Chief Executive Office Zarghoon Road Quetta on or before **10:00 A.M on 03.03.2026**, failing which the bid (s) shall be considered non responsive and rejected .
4. Tender cost /fee non refundable @ Rs. 5000.00 (five thousand only) shall be deposited in the office of the Finance Director QESCO. The Original DR (receipt) must be provided with bid proposal before bid closing time .
5. One Set of Filled hard copy of the same bidding documents along with supporting documents as uploaded on EPADs, must be submitted to the office of **Manager Material Management QESCO, Chief Executive Office Zarghoon Road Quetta** before the bid closing time i.e **10:00 AM on 03.03.2026**.
7. Tender will be opened in the office of Manager (MM) QESCO Quetta at Chief Executive office Zarghoon Road Quetta Cantt: **10:30 AM on 03.03.2026** in the presence of bidders or their Authorized representative (who choose to attend).
8. The bids having conditional bids, partial , incomplete documents and not submitted the sealed original CDR / Bank Guarantee as bid security shall be rejected .

[Note: the bid shall be opened at least thirty minutes after the dead line for submission of Bid].

INSTRUCTION TO BIDDERS

A-General

1.

Scope of Bid

Quetta Electric Supply company (QESCO) wishes to receive Bid for the following scope of work:

S. No	Tender No.	Description	As per specifications attached as	Qty No	Rate per Unit on FCS basis w/o GST (Rs.)	Basis of Supply
1.	2035	HT Coil winding machine (Up to 400 KVA)	Annex- A	2		FCS to Field Store QESCO Turbat
2		LT Coil winding machine (Up to 400 KVA)		2		
3		Tube Binding Machine	Annex- B	1		
4		Shearing Machine		1		
5		Transformer Drying Oven (Electric) Capacity 20 No. T/Fs. Per Trolley. As per WAPDA Specification amended to date. Supply, proper installation, testing & commissioning, complete in all respect including all type of accessories / fitting / installation at TRW	Annex- C	1		
6		Transformer Oil Dehydration Plant (2000 Ltrs / Hour Capacity) Main tank (1000 Ltrs Storage Capacity) D tank (2000 Ltrs Storage Capacity)		1		
7		Over head crane (05 Ton)	Annex- D	1		
8		Test Bench Complete		1		
9		Grinder Machine		1		
10		Compressor Machine		1		
11		Tools Complete Mentioned at Page No.5		1		
12		T.T.R (3-Phase) Japanese , European or equivalent.	Annex-F	1		
13		Megger (15 KV) Japanese , European or equivalent.		1		
14		A/C, D/C Clamp on Meter (0-200 Amp)	Annex-G	1		
15		Electric Welding Plant with copper winding		1		
16		Gas Welding Plants	Annex- H	1		
17		AVO Meter		02		
		LT Stand		02		

Sr. No.	Description of material	Tender Qty. (Nos.)	Rate per Unit on FCS basis w/o GST (Rs.)	Basis of Supply
1	Wrench Socket Set Japan (24 Pieces off sizes)	02		FCS to Field Store QESCO Turbat
2	Ring Spanner Set China (6 Pieces off sizes)	02		
3	Cutter Plier 6"	04		
4	Screw Driver 12"	06		
5	Screw Driver 8"	06		
6	Chisel	06		
7	Sunny	06		
8	Tin Cutter	04		
9	Spanner Set	04		
10	Hammer	06		
11	File Full Round	08		
12	File Flat	08		
13	Electric Drill Machine	02		
14	Avo Meter Digital	02		
15	Hack Saw Frame	06		
16	Weight Machine 1000 Kg.	02		
17	Digital Scale upto 400 Kg.	02		
18	Bench Drill Machine	02		
19	Fire Extinguisher/ Cylinder CO2 5Kg.	06		
20	Fire Extinguishers Trolley 25Kg Co2	02		
21	Fire Extinguisher AFF 10 Ltr.	02		
22	Goti Pana Set	04		
23	Vernier Clipper 6"	02		
24	First Aid Box complete with medicine.	02		
25	C-Clamp 12"	04		
26	C-Clamp 18"	04		
27	Pipe Rench 08"	02		
28	Pipe Rench 10"	02		
29	Pipe Rench 12"	02		

30	Press Board Sheet/Paper Hole Maker Machine	02		
31	Bolt Cutter	06		
32	Table Vice with Stand	02		
33	Grip Plier	02		
34	Hand Core Cutter for State Cutter 03 Feet Length	02		
35	SERN Machine Single Phase	02		
36	LT Cutter	02		

Bidder must quote for the complete scope of work . Any Bid covering partial scope of work will be rejected as non- responsive.

Supply of said items including installation, commissioning, testing and energization of above all items along with all type of accessories as per satisfaction of QESCO authorized representative / inspectors. Testing Charges will be born by the bidder.

IB.2 BIDDERS ELIGIBILITY:-

2.1 Bidding is open to all firms meeting the following requirements:

- a. Comply with the terms and condition mention in NIT.
- b. Duly Registered with sale tax department , having valid sale tax registration number.
- c. Shall have satisfactory performance in any DISCO against work order/Purchase order issued particularly related to manufacturing /reclamation of Transformers of Testing equipment's , or of similar nature with the same or higher ratings.
- d. Firms Register with PPMC/NTDC/QESCO / other DISCOs in any category will be preferred .
- e. In case of supplier, the bidder must have Authorization letter from the Manufacturer .

B. BIDDING DOCUMENT.
3. CONTENT OF BIDDING DOCUMENT

3.1 In addition to invitation for Bids, the Bidding Documents are those stated below , and should be read in conjunction with any Addendum issued in accordance with Clause .4.

- 1.** Instruction to Bidders with Appendices.
- 2.** Form of Bid & Schedules to Bid.

Schedule to Bid are the following.

- (i) Schedule A: Schedule of Prices.
- (ii) Schedule B: Schedule of Delivery
- (iii) Schedule C: Deviation from technical provisions
- (iv) Schedule D: Deviation from Contractual Conditions.
- (v) Schedule E: Integrity Pact

3. Condition of Contract.

4. Standard Forms.

Forms include the following:

- (i) Form of Bid Security
- (ii) Form of Performance Security.

5. Specification- Technical Provision

3.2 The bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of bid submission will be at the bidders own risk. Pursuance to Clause.19, bids which are not substantially responsive to the requirements of the Bidding Documents will be rejected.

4. AMENDMENT OF BIDDING DOCUMENT

- 1.1** At any time prior to the dead line for submission of bids, the Purchaser may , for any reason, whether at his own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by issuing addendum.
- 1.2** Any addendum thus issued shall be part of the Bidding Documents pursuant to Sub Clause 4.1hereof, and shall be communicated in writing to all purchasers of the Bidding Documents. Prospective bidders shall acknowledge receipt of each addendum in writing to the Purchaser. The bidder shall also confirm in the Form of Bid that the information contained n such addenda have been considered in preparing his bid.
- 1.3** To afford prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Purchaser may at its discretion extend the dead line for submission of bids in accordance with Clause .14.

C. PREPARATION OF BID.

5. LANGUAGE OF BID

5.1 The Bid prepared by the Bidder and all correspondence and documents relating to the Bid, exchanged by the Bidder and the Engineer shall be written in the English language , provided that any printed literature furnished by the Bidder may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the Bid, the English translation shall govern.

6. DOCUMENT COMPRISING THE BID.

5.1 The Bid prepared by the Bidder shall comprise the following components.

- i. Covering letter.
- ii. Form of Bid duly filled, signed and sealed in accordance with clause 12
- iii. Schedule (A to E) to Bid duly filled and signed, in accordance with the instructions contained therein.
- iv. Schedule of prices completed in accordance with Clauses.8 and 9.
- v. Bid Security furnished in accordance with Clause .10.
- vi. Power of attorney in accordance with Clause .12
- vii. Any other Documents prescribed in particular conditions of contract or technical provision to be submitted with Bid.
- Viii. Declaration regarding use of prime materials.(If Applicable)

7. FORM OF BID AND SCHEDULES.

7.1 The Bidder shall complete, sign and seal the form of Bid, Schedules to Bid and Schedule of prices furnished in the Bidding documents and shall also enclose other information as detailed in Clause .6

8. BID PRICES.

8.1 The Bidder shall fill up the schedule of prices attached to this documents indicating the unit rates and total value of quantity offered. Prices quoted by the Bidder shall remain fixed during the bidders performance of the contract and not subject to variation on any account. When the bidders are required to quote only fixed price (s) a bid submitted with an adjustable price quotation will be treated as non responsive and rejected, pursuant to Clause .19.

9.

CURRENCY OF BID.

9.1 Prices shall be quoted in the Pak . Rupees.

10.

BID SECURITY.

- 10.1 Each Bidder shall furnish , as part of his Bid, a Bid Security in the amount of Pak Rupees Amounting to Rs. **925,940.00**
- 10.2 The Bid Security shall be , at the option of the Bidder, in the form Deposit at Call or a Bank Guarantee issued by a scheduled Bank of Pakistan.
- 10.3 The Bid security is required to protect the Purchaser against the risk of bidder's conduct which would warrant the security's forfeiture, pursuant to Sub-Clause 10.7 hereof.
- 10.4 Any Bid not accompanied by an acceptable Bid Security shall be rejected by the purchaser as non responsive, pursuant to .19.
- 10.5 The Bid Security of unsuccessful Bidder will be returned upon award of contract to the successful Bidder or on the expiry of validity of Bid Security whichever is earlier .
- 10.6 The Bid Security of unsuccessful Bidder will be returned when the Bidder has furnished the required Performance Security, pursuant to Clause .24 and signed the contract agreement.
- 10.7 The Bid Security may be forfeited:
 - a. if a bidder withdraws his bid during the period of bid validity; or
 - b. if the bidder does not accept the correction of his bid price pursuant to sub Clause .19.2 hereof; or
 - c. incase of successful bidder , if he fail to;
 - (i) furnished the required performance security in accordance with Clause .24 or
 - (ii) sign the contract agreement.

11.

VALIDITY OF BIDS

- 11.1 Bids shall remain valid for 120 days after the date of opening as prescribed in Clause .14

12.

FORMAT AND SIGNING OF BIDS

- 12.1 Bidders are particularly directed that the amount entered on the Form of Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.
- 12.2 All Schedules to Bid are to be properly completed and signed.
- 12.3 No alteration is to be made in the Form of Bid nor in the Schedules thereto except in filling up the blanks as directed. If any alteration be made or if these instructions be not fully complied with, the bid may be rejected.
- 12.4 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign (in the case of copies, Photostats are also acceptable) . This shall be indicated by submitting a written Power of attorney authorizing the signatory of the bidder to act for and on behalf of the bidder. All pages of the bid shall be initialed and stamped by the person or persons signing the bid.
- 12.5 Bidders shall indicate in the space provided in the Form of Bid their full and proper addresses at which notices may be legally served on them and to which all correspondence in connection with their bids and the Contract is to be sent.
- 12.7 Bidders should retain a copy of Bidding Documents as their file copy.

D. SUBMISSION OF BID.

13. SEALING AND MARKING OF BID

- 13.1 Each bidder shall submit his bid as under:
 - a. ORIGINAL and each COPY of the Bid shall be separately sealed and put in separate envelopes and marked as such.
 - b. The envelope envelopes containing the ORIGINAL and COPIES will be put in one sealed envelope and addressed / identified as given in Sub-Clause.
- 13.2 The inner and outer envelope shall:
 - a. be addressed to Manager Material Management QESCO Head Quarter Zarghoon Road Quetta.
 - b. bear the Bid No and Date of opening.
 - c. provide a warning not to open before the date and time of opening .
- 13.3 The Bid shall be delivered in person or sent by registered mail at the address to Purchaser as given in Sub Clause 2 (a) above.
- 13.4 In addition to identification required in Sub Clause 13.2 hereof, the inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared “late” pursuant to Clause .15
- 13.5 If the outer envelope is not sealed and marked as above , the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

14. DEAD LINE FOR SUBMISSION OF BIDS

- 14.1
 - a. Bid must be received by the purchaser at the address specified in sub Clause 13.2 (a) hereof not later than the time and date stipulated in the invitation Bids.
 - b. Bids with charges payable will not be accepted, nor will arrangements be undertaken to collect the bids from any delivery point other than that specified above. Bidders shall bear all expenses incurred in the preparation and delivery of bids.
 - c. Where delivery of a bid is by mail and the bidder wishes to receive an acknowledgment of receipt of such bid, he shall make a request for such acknowledgment in a separate letter attached to but not included in the sealed bid package.
 - d. Upon request, acknowledgment of receipt of bids will be provided to those making delivery in person or by messenger.
- 14.2 Bid submitted through telegraph , tele, fax or e-mail shall not be considered.
- 14.3 The purchaser may, at his discretion , extend the dead line for submission of Bids by issuing an addendum in accordance with Clause .4 , in which case all rights and obligations of the purchaser and the bidders previously subject to the original deadline will there after be subject to the deadline as extended.

15.

LATE BIDS

15.1

- a. Any bid received by the purchaser after the deadline for submission of Bids prescribed in Clause .14 will be returned unopened to such bidders.
- b. Delays in the mail, delays of person in transit, or delivery of a bid to the wrong office shall not be accepted as an excuse for failure to deliver a bid at the proper place and time. It shall be the bidder's responsibility to determine the manner in which timely delivery of his bid will be accomplished either in person, by messenger or by mail.

16.

MODIFICATION, SUBSTITUTION AND WITHDRAWL OF BIDS

- 16.1 Any Bidder may modify , substitute or withdraw his Bid after Bid submission provided that modification , substitution, or written notice of the withdrawal is received by the Purchaser prior to the dead line for submission of Bids.
- 16.2 The modification, substitution or notice for withdrawal of any bid shall be prepared, sealed , marked and delivered in accordance with the provision of Clause .13 with the outer and inner envelops additionally marked “MODIFICATION”, “SUBSTITUTION” or “WITHDRAWL”, as appropriate.
- 16.3 Withdrawal of a Bid during the interval between the dead line for submission of Bids and the expiration of the period of Bid validity specified in the Form of Bid may result in forfeiture of the Bid Security pursuant to Clause .10

E.

BID OPENEING AND EVALUATION.

17.

- 17.1 A committee consisting of nominated members by the purchaser will open the bids , including withdrawal , substitution and modification met pursuant to Clause.16 , in the presence of bidders representatives who choose to attend , at the time , date and location stipulated in the invitation for bids. The bidders representatives who are present shall sign in a register evidencing their attendance.
- 17.2 Envelop marked “MODIFICATION”, “SUBSTITUTION” or “WITHDRAWL” shall be opened and read out first and then the name of the bidders shall be read out. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause .16 shall not be opened .

18. CLARIFICATION OF BIDS

18.1 To assist in the examination, evaluation and comparison of Bids the Purchaser may, at its discretion, ask the Bidder for a clarification of its Bid . The request for clarification

and the response shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted.

19. PRELIMINARY EXAMINATION & DETERMINATION OF RESPONSIVENESS OF BIDS

19.1 Prior to the detailed evaluation of Bids pursuant to Clause .20,

(a) The purchaser will examine the Bids to determine whether,

- (i) The Bid is complete and does not deviate from the scope,
- (ii) any computational errors have been made,
- (iii) required sureties have been furnished,
- (iv) the documents have been properly signed,
- (v) the Bid is valid till required period,
- (vi) the Bid prices are firm and final during currency of contract,
- (vii) completion period offered is within specified limits,
- (viii) the Bidder is eligible to Bid and possesses the requisites experience,
- (ix) the Bid does not meet the criteria.
- (x) the Bids are generally in order.

(b) A bid is likely not to be considered , if;

- (i) it is unsigned,
- (ii) its validity is less than specified,
- (iii) it is submitted for incomplete scope of work,
- (iv) it indicates completion period later than specified,
- (v) it indicates that works and materials to be supplied do not meet eligibility requirement,
- (vi) it indicates that Bid prices do not include the amount of income tax,

(c) A bid will not be considered, if;

- (i) it is not accompanied with bid security,
- (ii) it is submitted by a bidder who has participated in more than one bid,
- (iii) it is received after the deadline for submission of bids,
- (iv) it is submitted through fax, telex, telegram or email,
- (v) it indicates that price quoted are not firm during currency of the contract whereas the bidders are required to quote fixed price (s),
- (vi) the bidder refuses to accept arithmetic correction,

19.2 Arithmetical errors will be rectified on the following basis:

If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be correct . If there is a discrepancy between the words and figures the amount in words shall prevail . If there is a discrepancy between the total Bid price entered in the Form of Bid and the total shown in schedule of prices summary , the amount stand in the Form of Bid will be corrected by the purchaser in accordance with the corrected schedule of prices. If the bidder does not accept the corrected amount of Bid , his Bid will be rejected and his Bid Security forfeited.

- 19.3 Prior to the detail evaluation , pursuant to Clause .20 the purchaser will determine the substantial responsiveness of each Bid to the Bidding Document. For purpose of these clauses, a substantially responsive Bid is one which conforms to all the terms & condition of the Bidding Documents without material deviations.
A material deviation or reservation is one.
- 19.4 A Bid determined as substantially non responsive will be rejected and will not subsequently be made responsive by the bidder by correction of the non-conformity.
- 19.5 Any minor informality or non conformity or irregularity in a Bid which does not constitute a material deviation may be waived by purchaser , provided such waiver does not prejudice or affect the relative ranking of any bidder.

20. DETAILED EVALUATION OF BIDS.

- 20.1 The purchaser will evaluate and compare only the Bids previously determined to be substantially responsive pursuant to Clause .19 as per requirement given here under.
- 20.2 Evaluation and Comparison of Bids:
 - a. Bid will be evaluated for complete scope of work.
 - b. The prices will be compared on the basis of the evaluated Bid price.
 - c. It will be examined in detail whether the Goods offered by the bidder is inline with technical provisions of the bidding documents.
 - d. P.O can be placed for complete scope of work.

21. PURCHASER'S RIGHT TO VARY QUANTITY

- a. The Tender Quantities can be increased or decreased according to the field formation requirement and in accordance with the availability of funds/ finance
- b. The purchaser reserve the right to increase or decrease the quantity up to 15% after placing of purchase order without any change in the unit price.

22. PURCHASER'S RIGHT ACCEPT ANY BID AND TO REJECT ANY OR ALL BID.

22.1 The purchaser reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidders or any obligation to inform the affected bidders of the grounds for the purchasers action accept that the grounds for its

rejection shall upon request be communicated , to any bidder who submitted a bid, without justification of grounds. Rejection of all bids shall be notified to all Bidders promptly.

23. NOTIFICATION OF AWARD

23.1 Prior to expiration of the period of Bid validity prescribed by the purchaser , the purchaser will notify the successful Bidder in writing (Letter of Intent) that his Bid has been accepted .
23.2 The letter of intent (LOI) and its acceptance by the Bidder will constitute the formation of the contract , binding the Purchaser and the Bidder till signing of the formal contract agreement.
23.3 Upon furnishing of performance Guarantee by the successful Bidder , the purchaser will promptly notify the other Bidders that their Bid have been un successful and return their Bid Securities.

24. PERFORMANCE SECURITY

24.1 The successful Bidder shall furnish to the purchaser a performance Guarantee in the Form and the amount stipulated in the condition of the contract within period specified in letter of intent. In case of further delay due to late submission of performance bond, purchase order may be issued after deducting the delayed period from the legitimate delivery schedule mentioned in the LOI or Bidding documents.
24.2 Failure of the successful Bidder to comply with the requirement of sub Clause .24.1.or Clause .25 shall constitute sufficient grounds for the annulment of the award and /Debarment/Black listing of the firm/ forfeiture Bid Security.

25. INTEGRITY PACT.

The Bidder Shall sign and stamp the Integrity Pact provided at scheduled- E to Bid in the Bidding Document for all contracts exceeding Rs 10 Million. Failure to provide such Integrity Pact shall make the bid non responsive (If Applicable).

FORM OF BID AND SCHEDULE TO BID

FORM OF BID (LETTER OF OFFER)

Bid Reference No. _____

(Name of Work)

To.

Having examined the Bidding Documents including instructions to bidders, Condition of Contract, Specifications, Drawings, Schedule of Prices and addenda Nos. _____ for the execution of the above-named Works, we, the undersigned, being a company doing business under the name and address _____

and being duly incorporated under the laws of _____ hereby offer to execute and complete such works and remedy any defects therein in conformity with the said Documents including Addenda thereto for the Total Bid Price of Rs. _____ or such other sum as may be ascertained in accordance with the said Documents.

2. as may be ascertained in accordance with the said documents.

3. We understand that all the schedules attached hereto form part of this Bid.

4. As security for due performance of the undertakings and obligations of this bid, we submit herewith a bid security in the amount of Rs. _____ drawn in your favour or made payable to you and valid for a period of 120 days.

5. We undertake, if our Bid is accepted, to commence the works and to deliver and complete the whole of the works comprised in the Contract within the time(s) stated in the conditions of contract..

6. We agree to abide by this bid for the period of 120 days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

7. Unless and until a formal Agreement is prepared and executed, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.

8. We undertake, if our bid is accepted, to execute the performance security referred to in clause 1(iv) of conditions of contract for the due performance of the contract.

9. We understand that you are not bound to accept the lowest or any bid you may receive.

10. We do hereby declare that the bid is made without any collusion, comparison of figures or arrangements with any other person or persons making a bid for the works.

Dated this _____ day of _____ 20_____
Signature _____ in the capacity of _____ duly authorized to sign and on behalf
of _____

(Name of bidder in Block Capital)
(Seal)

Address

Witness:

(Signature)

(Name) _____

Address

Occupation

SCHEDULE OF DELIVERIES

S. No	Description	Qty Nos	To Field Store QESCO Turbat with the following Delivery Schedule
1.	HT Winding Machine	As per Specifications attached or Equivalent	01 to 120 days. Subject to Re-Consideration at time of issuance of P.O in accordance with field formation requirement.
2	LT Winding Machine		
3	Tube Binding Machine		
4	Shearing Machine		
5	Transformer Drying Oven (Electric) Capacity 20 No. T/Fs. Per Trolley.		
6	Dehydration Plant		
7	Over head crane 05 Ton		
8	Test Bench Complete		
9	Grinder Machine		
10	Compressor Machine		
11	Tools Complete		
12	T.T.R		
13	Meggar (15 KVA)		
14	Clamp		
15	Welding Set Electric Gas		
16	LT Stand		
17	AVO Meter		

Seal & Signature of Bidder

DEVIATIONS FROM TECHNICAL SPECIFICATIONS

It is presumed that the bidder shall not take any deviation. However, if he intends to take deviations to the specified terms, those must be listed in the space provided below:

S.No.	Clause No. / Section No	Deviations/ Clarification
-------	-------------------------	---------------------------

DEVIATIONS FROM CONTRACTUAL CONDITIONS

It is presumed that the bidder shall not take any deviation. However, if he intends to take deviations to the specified terms, those must be listed in the space provided below:

S.No.	Clause No. / Section No	Deviations/ Clarification
-------	-------------------------	---------------------------

(INTEGRITY PACT)**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY
THE SUPPLIERS OF GOODS, SERVICES AND WORKS IN CONTACTS WORTH
RS. 10.00 MILLIONS OR MORE/**

Contract No. _____ Dated _____

Contract Value: _____

Contract Title: _____.

..... hereby declare that it has not obtained or induced the procurement of any contract, right, interest , privilege, or other obligation or benefit from govt of Pakistan (GoP) or any administrative Sub Division or agency thereof or any other entity owned or controlled by GoP through any corrupt business practice.

With out limiting the generality of the foregoing ,..... represent or warrant that it has fully declared the brokerage, commission, fees etc paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affialiate , agent , associate, broker, consultant , Director, promoter , shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described contract, right , interest ,privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

.....certifies that it has made and will make full disclosure of all agreements and arrangements with all persons n respect of or related to the transaction with GoP AND AHAS not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

..... accepts fully responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of the declaration, representation and warranty. It agrees that any contract, right , interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoP under any law, Contract or other instrument, be voidable at the option of GoP .

Notwithstanding any rights and remedies exercised by GoP in this regard , agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten time the sum of any commission , gratification ,bribe , finders fee or kickback given by as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatever form from GoP/

Name of Buyer:..... Name of Seller/Supplier.....

Signature..... Signature.....

[Seal]

[Seal]

CONTRACT CONDITIONS

1. i) The quoted prices shall be firm and final on FCS basis Without GST and not subject to escalation for any reason what so ever. The conditional prices shall not be accepted.
- ii) a) The prices include the present duties and taxes. In case however the present duties and taxes are increased or new taxes/duties are imposed by the Govt. on finished goods, during the currency of the contract, the same will be paid extra on production of documentary evidence. In case of decrease in duties/taxes by Govt. the prices will be decreased accordingly.
- b) The payment of Sales Tax @ 18% shall be made on production of Sales Tax Invoice and Sales Tax return cum payment Challan alongwith Annexure "C" (Sale Summary). Amount of sales tax invoice must be cross-verified from sales summary filed to FBR along with sales tax return. In case you pay lump sum Sales Tax for multi goods production, you will also submit an affidavit on non-judicial paper that " the challan includes the amount of Rs. _____ of sales tax for supply of _____ against P.O No. _____ dated _____.
- a. The QESCO reserves the right to increase / decrease the quantity of the supply during the currency of contract upto 15%.
- iv) The supplier shall provide a Performance Security in the form of Bank Guarantee from any scheduled bank of Pakistan on the prescribed Form annexed to these documents. The said security shall be furnished by the supplier within (14) days after issuance of letter of intent (LOI). The performance security shall be an amount equal to five (05) percent of the Contract price including 18% tax.
- v)
 - a) If you do not possess the prototype approval (if required) for goods within last three (3) years, you shall have to obtain the prototype approval within one month of issue of purchase order, from the office of Chief Engineer (D.S) NTDC, Lahore. The testing will be conducted at HV&SC Lab NTDC Rawat without affecting the delivery schedule. For this purpose, the prototype sample shall be submitted by you within 15 days from the date of issue of purchase order to the Chief Engineer (D.S) NTDC, Lahore for his approval. In case of failure of prototype sample due to non compliance to Specification, the delay shall be to manufacturer / Suppliers account and it should, in no way, affect the prescribed delivery schedule.
 - b) The supplier shall provide free of charge, all such assistance, instruments, machinery, testing appliances, manpower, labour and material as are normally/specially required for carrying out available type sample, routine, visual, and dimensional testing.
 - c) Any changes suggested during prototype testing for compliance of Specification and purchase order shall have to be incorporated without any extra price claim.
 - d) Over and above normal inspection, may carry out all possible and locally available tests, including the routine and sample tests, once during the currency of Purchase Order at RTL Faisalabad, HV&SC Testing Lab Rawat Islamabad, manufacturer's Lab, or any other local independent laboratory approved by the department.
 - e) All expenses like testing fee, expenditure incurred for shipment of goods from manufacturer's premises to the testing laboratory, travelling, lodging/boarding and daily allowance of two (MI) PPMC former PEPCO/QESCO Engineers shall be borne by the manufacturer.

SPECIAL CONDITIONS:-

1. In case of any specific occurrence the shares will be distributed on the basis of previous performance in supplies against DISCOs Purchase Orders, manufacturing capacity/ capability etc.
2. Conditional Bids/ Rates will not be entertained / accepted.
3. Bid submission / Tender opening date & timings shall be observed strictly.
4. You have to submit the requisite Certificate duly filled in, regarding the Declaration of Fees, Commission & Brokerage etc paid by you about Goods, Services & Works .
5. Cartel / pool rates are strictly prohibited. The firms found involved in collusive practice shall be dealt under PPRA Rules / PPMC instructions.
6. In case of holiday announced by the Govt. of Pakistan, strike in QESCO or any other reasons what so ever due to which this office remains closed on the above scheduled tender opening date, the tender will be opened on next working day at same time and place / venue.
7. Bidder/ Tenderer will submit a certificate that the firm is not black listed / debarred from WAPDA/DISCO's/Genco's/NTDC at present.
8. Cutting / Overwriting will be considered as "**NON RESPONIVE**".
9. Equipment's supplied must be got tested and calibrated from PNAC & PCSIR Pakistan.

10. Site Visit

- 10.1 The Bidders are advised to visit and inspect the Location of Delivery and its surroundings and obtain for themselves on their own responsibility all information that may be necessary for preparing the bid and entering into a Contract for Supply of Goods. All cost in this respect shall be at the bidder's own expense.

2) TERMS OF DELIVERY.

Free delivery to Field /Store QESCO Turbat.

3) DELIVERY PERIOD (as given in the schedule of delivery)

Delivery period is the essence of the Contract and delivery must be completed not later than the dates specified. 1st day of inspection or 15th day of inspection call whichever is earlier, shall be reckoned as date of delivery of Store to QESCO Consignee provided the goods accepted for supply have been delivered within 20-days of issue of Inspection Certificate subject to the condition that the supplier / manufacturer offers the material for Inspection at least 15-days prior to the due date and the offer is not rejected due to being a fake call or material not conforming to the specification.

4) INSPECTION.

- a) Inspection of the material will be carried out at your works by two authorized representative of CEO QESCO inspection team, Notice in writing shall have to be given to the Inspecting Officer by you that the store against the order is ready for inspection. All reasonable facilities as provided in the specifications or followed by the Industry or Trade in General shall have to be afforded to the inspecting Officer by you at your expense for carrying out Inspection, including (return ticket) for place of inspection , local transportation ,boarding lodging in A-Class accommodation , daily allowance as per entitle.

Inspection after Installation (at the time of commissioning) will be carried out by QESCO Officer nominated by Chief Executive officer QESCO, Quetta along with Dy: Manager (TRW) QESCO Quetta.

b) Inspection charges paid to inspecting officers will not be reimbursed to you by QESCO.

6) **PAYMENT.**

(a) Director (Finance) QESCO, will establish a confirmed and irrevocable inland letter of Credit for Rs. _____ through any schedule Bank of Pakistan in your favour as per specimen, approved by the Authority. The amount of material excluding sales tax i.e. Rs. _____ in the letter of credit shall be available for negotiation and en-cashable as under: -

- i. Bill in triplicate for 100% Claim.
- ii. Delivery Challan & GRN duly stamped and signed by the consignee.
- iii. Warranty Certificate.
- iv. Confirmation of Manager (Material Management) QESCO about acceptance of Performance Bond.
- v. Inspection Certificate issued by Inspectors.
- vi. Professional Tax paid certificate by the firm.
- vii. Certificate that the billed amount has not been claimed or received earlier.
- viii. Sales Tax Invoice.
- ix. Under taking on prescribed Performa issued vide Ministry of Finance (Finance Division) D.O. No. 687/MD(PPRA)/05 dated 14-09-05 (Copy enclosed) Annexure-A.

(b) The amount of 18% sales tax in the letter of credit shall be available for negotiation and en-cashable on production of sales tax return cum payment challan. In case of manufacturers who pay lump sum sales tax, they shall also submit an affidavit on non-judicial paper that the challan includes the amount of sales tax for supply of the mentioned items. These documents shall however, be got verified from Director Finance QESCO Quetta before payment by the Bank.

NOTE: - All charges relating to L/C opening and negotiation charges shall be borne by the firm. On receipt of copy of Purchase Order Director Finance QESCO will open L.C. & charges incurred on L.C. will be recovered from the Invoice/Bill of the Supplier / Manufacturer, particular of your bankers against which L.C. shall be opened may be intimated immediately.

OR

Director (Finance) QESCO, will make payment on production of following documents:

- i) Bill in triplicate for 100% Claim.
- ii) Delivery Challan & GRN duly stamped and signed by the consignee.
- iii) Warranty Certificate.
- iv) Confirmation of Manager (Material Management) QESCO about acceptance of Performance Bond.
- v) Inspection Certificate issued by Inspectors.
- vi) Sale Tax Invoice.
- vii) Professional Tax paid certificate by the firm.

viii) Certificate that the billed amount has not been claimed or received earlier.
PARTIAL DELIVERIES AND PART PAYMENT IS ALLOWED.

7) **CONSIGNEE.**

Field Store QESCO Turbat

8) **GENERAL SALES TAX & OTHER GOVERNMENT DUTIES.**

As per condition No. ii Clause under clause-1(B) special condition.

9) **WARRANTY:**

You will furnish a Warranty Certificate, certifying that the goods supplied conform exactly to the Specifications laid down in the Contract and are brand new and that in the event of the material being found defective or not conforming to the Specifications/Particulars governing supply at the time of delivery and for a period of **24 Months** from the date of completion of supply, you will be held responsible for all losses and that the unacceptable goods shall be substituted with the acceptable at your expense & cost.

10) **FORCE MAJEURE.**

The right of QESCO to terminate the Contract, or to claim penalty or liquidated damages shall be subject to the following circumstances, provided as a result of all or any of these events there has been delay in the Performance of the Contract by the manufacturer or Supplier, or the contract has become incapable of being performed: -

- i) Act of God;
- ii) Act of State, War or any Act of the Enemy;
- iii) Lock outs, Riots or Civil Commotion;
- iv) Injunction granted by a Court of Competent jurisdiction not resulting from any fault of the Manufacturer or Suppliers;
- v) Restriction imposed by the Government on the Import of any material relating to the manufacture of goods.
- vi) Non-receipt of raw material from abroad for reasons beyond the control of the manufacturer;
- vii) Port delays due to bunker age or lighter age;
- viii) Divisions of supplies by the carrier without any fault or knowledge of the manufacturer or supplier.

Provided further that the manufacturer or supplier has given notice to QESCO within 14-days of the happening of any such event.

11) **FAILURE & TERMINATION.**

(A) If you fail to deliver the stores or any consignment thereof within the specified delivery period, the purchaser shall be entitled at his option either:

- (I) To recover from you liquidated damages levied at the rate of two percent (2%) per month or a fraction, thereof subject to a maximum of ten percent (10%) of the contract price, except.
- (a) Where un-delivered stores hold up the use of other stores, liquidated damages shall be levied on the total value of the contract.

- (b) The recovery of liquidated damages mentioned above can be effected from any payment due to you from any unit of QESCO, or
- (II) To purchase from elsewhere without notice to you at your risk and cost, the stores not delivered, without canceling the contract in respect of the consignment not yet due for delivery.
- (III) To cancel the contract at your risk and cost.

In the event of action being taken under (ii) or (iii) above, you shall be liable for any loss which the purchaser may suffer on the account; but you shall not be entitled to any gain on repurchase made against the supply order.

- (B) If during the course of execution of contract, you are black-listed by DISCOs/GENCO/NTDC / QESCO, the purchaser may proceed with all or any of the actions detailed below:-

 - (i) To allow the contract to run its course till completed in accordance with the terms and conditions of contract;
 - (ii) To stop further supplies with or without financial repercussions;
 - (iii) To cancel the contract with or without reservation or rights.

- (C) You may be blacklisted / debarred from future tendering with QESCO / DISCOs on the following grounds:

 - i) Making false statements and allegation to gain undue advantage.
 - ii) Commission of fraud,
 - iii) Commission of embezzlement , criminal breach of trust, theft , cheating , forgery , bribery , falsification or destruction of records, receiving stolen property , false use of trademark , securing fraudulent registration, giving false evidence , furnishing of false information of serious nature.

NOTE

While determining liquidated damages the purchaser shall not consider any of the following circumstances, a cause under “FORCE MAJEURE” and shall not allow any relaxation in the liquidated damages on the account: -

- (i) Delay on the part of the contractor in the arrangement of raw material.
- (ii) Defect or failure occurring to any machinery or equipment installed at the contractor works during the currency of the contract.

12) RESPONSIBILITY FOR EXECUTING THE CONTRACT.

You are entirely responsible for the successful execution of the contract in all respects in accordance with the terms and conditions as specified in the contract including the schedule.

13) INSPECTION AND REJECTION:

- (i) The inspecting officer may reject a part or the whole of the consignment tendered for inspection, if after inspection such portion thereof as he may decide on his discretion he is

satisfied that the consignment is below the requirements of the particulars governing the supply given in the Purchase Order.

- (ii) The decision of the Inspecting Officer shall be binding on you.
- (iii) If the stores are rejected as aforesaid, then without prejudice to the right of the purchaser you may submit stores in replacement of those rejected but re-submission will not mean extension of delivery period.
- (iv) On final rejection the purchaser shall have the following rights:
 - (a) To purchase the rejected goods at your cost and expense.
 - (b) To terminate the contract and recover from you the loss, the authority thereby incurs.

14) PACKING

You will be responsible for packing the store suitable for transit by Rail / Road so as to ensure their being free from loss or damage on arrival at destination. The packing of the stores shall be done by and at your expense in accordance with the standard specifications governing such packing. In case there are no standard specifications, goods will be packed according to the trade practice to ensure safe receipt at destination.

15) FORFEITURE OF SECURITY BOND / BANK GUARANTEE

The contracting officer will have the right to forfeit the Security Bond/Guarantee (Performance Bond)

- (A) If the Contractor: -
 - (i) Fails to supply the goods within the time specified;
 - (ii) Commits any breach of contract;
 - (iii) Fails to account for the Import License issued on account of the purchaser;
 - (iv) Fails to account for the raw material secured by the contractor against any license or permit issued on account of the contracting officer;
 - (v) Fails to return drawings, design or any material belonging to the contracting officer which was to be returned in good condition to the contracting officer after the successful termination of the contract.
- (B) for other reasons specified in the Purchase Order by the contracting officer for forfeiting the Security deposit.

If the forfeiture of the security deposit does not compensate the contracting officer for losses suffered due to non-delivery or breach of contract for any other reasons, the contracting officer will have a right to forfeit other security deposits or to recover the same from any other security deposit made in favor of any other unit of WAPDA/DISCOs/PPMC or from any money due to the contractor from any unit of WAPDA/ DISCOs/PPMC.

FORM OF TENDER SECURITY (Bank Guarantee)

Guarantee No. _____

Executed on _____

Expiry Date _____

Letter by the Guarantor to the Purchaser Employer

Name of Guarantor (Bank) with address: _____

Name of Principal (Tenderer) with address: _____

Penal Sum of Security (express in words and figures): _____

Tender Reference No. _____ Date of Tender _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and at the request of the said Principal, we the Guarantor above-named are held and firmly bound unto the _____ (hereinafter called the "Purchaser /Employer") in the sum stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the accompanying "Bid numbered dated as above for _____ (Particulars of Tender) to the said Purchaser/ Employer; and WHEREAS, the Purchaser / Employer has required as a condition for considering said Bid that the Principal furnish a Bid Security in the above said sum to the Purchaser, conditioned as under:

- (1) that the Tender Security shall remain valid for a period 120 days.
- (2) that in the event of;
 - a) the Tenderer withdraws his Tender during the period of validity of Tender, or
 - b) the Tenderer does not accept the correction of his Tender Price.
 - c) failure of the successful tender to
 - i) furnish the required Performance Security.
 - ii) sign the proposed Contract Agreement/ Acceptance of P.O,

then the entire sum be paid immediately to the said Purchaser as Liquidated Damages and not as penalty for the successful Bidder failure to perform.

NOW THEREFORE, if the successful Bidder shall, within the period specified therefor, on the prescribed form presented to him for signature enter into a formal contract with the said Employer/ Purchaser in accordance with his tender as accepted and furnish within fourteen (14) days of his being requested to do so a Performance Security with good and sufficient surety, as may be required, upon the Form prescribed by the said Employer/Purchaser for the faithful performance and proper fulfillment of the said contract or in the event of non withdrawal of the said Bid within the time specified for its validity then this obligation shall be void and of no effect but otherwise to remain in full force and effect.

PROVIDED THAT the Guarantor shall forthwith pay to the Purchaser/ Employer the said sum stated above upon first written demand of the Purchaser! Employer without cavil or argument and without requiring the Purchaser / Employer to prove or to show grounds or

reasons for such demand notice of which shall be sent by the Purchaser / Employer by registered post duly addressed to the Guarantor at its address given above.

PROVIDED ALSO THAT the Purchaser/ Employer shall be the sole and final judge for deciding whether the Principal has duly performed his obligation to sign the Contract Agreement and to furnish the requisite Performance Security within the time stated above, or has defaulted in fulfilling said requirements and the Guarantor shall pay without objection the sum stated above upon first written demand from the Purchaser forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above bounden Guarantor has executed the instrument under its seal on the date indicated above, the name and seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

(Guarantor (Bank))

Witness:

1. Signature

2. Name.

3. Title.

1.

(Corporate Secretary (Seal))

2.

(Name, Title & Address) (Seal)
Guarantor) (Seal)

(Corporate

FORM OF PERFORMANCE SECURITY (Bank Guarantee)**Annex-D**

Guarantee No. _____

Executed on _____

Expiry Date _____

Letter by the Guarantor to the Purchaser / Employer.

Name of Guarantor (Bank) with address _____

Name of Principal (Tenderer) with address: _____

Penal Sum of Security (express in words and figures): _____

Contract No. _____ Date _____

Letter of Acceptance No. _____ Date _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Tender Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal, we the Guarantor above-named are held and firmly bound unto the _____ (hereinafter called the "Purchaser/ Employer") in the penal sum of the amount stated above, for the payment of which sum well and truly to be made to the Employer/ Purchaser, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has accepted the Purchaser's/Employer's above said Letter of Acceptance for _____

_____ (name of Contract) for the _____ (Name of Project)

NOW WHEREAS, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the Said Documents and any extensions thereof that may be granted by the Purchaser/ Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be null and void; otherwise to remain in full force and effect till _____ (Date).

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, _____ the Guarantor), waiving all objections and defences under the Contract, do hereby irrevocably and independently guarantee to pay to the Purchaser/ Employer without delay upon the Purchaser/ Employer's first written demand without cavil or arguments and without requiring the Purchaser/ Employer to prove or to show grounds' or reasons for such demand any sum or sums up to the amount stated above, against the Purchaser/ Employer's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the guarantor to Purchaser/ Employer's designated Bank & Account Number.

PROVIDED ALSO THAT the Purchaser/ Employer shall be the sole and final judge for deciding whether the Principal (Contractor) has duly performed his obligation under the Contract or has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Purchaser/ Employer forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above bounden Guarantor has executed this instrument (Performance Guarantee) under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Guarantor (Bank))

Witness: 1. Signature _____

2. Name. _____

3. Title. _____

1. _____
(Corporate Secretary (Seal))
2. _____
(Name, Title & Address) (Seal) _____
(Corporate Guarantor) (Seal)

HT WINDING MACHINE

SPECIFICATION / TECHNICAL PARAMETERS:

- ❖ Height 04 Ft, Width 02.25 Ft, Length 02 Ft
- ❖ Shaft Dia 1.5 inch Length 02 Ft
- ❖ Frame Angle 2.5 inch x 2.5 inch
- ❖ Clutch / Male Female system for speed control.
- ❖ Motor 3 HP (03 Phase) brand new
- ❖ Counter Meter digital with sensor
- ❖ Magnetic Connector, breaker with over load relay
- ❖ Frame Cover Sheet 2 mm
- ❖ Real Stand
- ❖ Wire catcher frame with high gauge
- ❖ Finishing of machine will be fine.

LT WINDING MACHINE

SPECIFICATION / TECHNICAL PARAMETERS:

- ❖ Height 4 Ft, Width 2 Ft, Length 2.5 Ft
- ❖ Shaft Dia 1.5 inch Length 3 Ft
- ❖ Frame Channel 3inch
- ❖ Side Cover Sheet 2 mm
- ❖ Gear Worm 80RPM
- ❖ Gear Motor 3HP (03 Phase) brand new
- ❖ Counter Meter digital with sensor
- ❖ Magnetic Connector, breaker with over load relay
- ❖ Real Stand bear at least 500 kg weight and 03 No. LT coils stand on it
- ❖ Wire Catcher
- ❖ Break System
- ❖ Finishing of machine will be fine

SHEARING MACHINE (ELECTRIC).

A heavy duty electrically operated guillotine Press Pan Paper Cutting / Shearing Machine (Electric) having capacity for cutting Press Pan Paper / Press Board Sheet upto 3x1200mm and also suitable for cutting Press Board Sheets from 0.5mm to 3mm thick shall be complete with 3-phase Electric Motor 5 H.P brand new, Adjustable Rear Gauge, Guides Clamping plate, foot paddle etc. A suitable On / Off switch breaker, magnetic connector with over load relay on the machine is installed.

SPECIFICATION OF TRANSFORMERS DRYING ELECTRIC OVEN

1- SCOPE.

This specification covers supply, erection and commissioning of a Transformer drying electric oven at Transformer Reclamation Workshop QESCO Turbat for thermal and vacuum drying of repaired distribution Transformers of various capacities and sizes.

2- SIZE.

The drying electric oven shall be designed to have the following dimensions inside its vacuum chamber

Length : 16.0 ft
Height: 08.0 ft
Width: 08.0 ft

3- RATING

The drying oven shall be designed for a working temperature up to 90C° to 110C° and vacuum of less than 1 Torr.

4- DESIGN AND CONSTRUCTION

4.1 THE DRYING OVEN SHALL BASICALLY COMPRIZE OF THE FOLLOWING:

1. Vacuum Chamber.
2. Door and associated hydraulic system for operation of door.
3. Trolley system and associated motor drive mechanism for the transportation of transformers into and out of the oven.
4. Vacuum system complete with vacuum pump(s) associated pipe work and necessary valves.
5. Condenser System.
6. Protection and safety devices.
7. Measurement and indications.
8. Control Cabinet.

4.2 MECHANICAL CONSTRUCTION.

Main body of the drying oven shall be oval type, main structure is made of channels size 3 inches x 6 inches with supporting channel size 4 inches x 2 inches and space between each supporting channel would be 2x2 ft and welded construction fabricated from suitably thick M.S sheet 1/4 inch duly reinforced to withstand, and ensure against any shivering under stresses at the operation vacuum conditions.

4.3 DOOR.

A leak proof Vertical handling door shall be arranged with hydraulically operated 06 No. Jacks & 10 No. screws. The door shall have a suitable good quality gasket which shall be heat resistant for temperature of at least 200C° and capable of withstanding operating vacuum conditions and day to day opening and closing of the door. The gasket shall be guaranteed for minimum two years of satisfactory service without need for replacement. A separate gasket may be provided with the oven.

4.4 THERMAL INSULATION

The Thermal insulation of the drying chamber of the oven including the door shall consist of glass wool thickness 6 inch which shall be covered on outside by G.I sheet of 18SWG. It shall be such that heat loss does not exceed 5C° per hour, once oven has been heated to 90C° and heating source disconnected.

4.5 TROLLEY SYSTEM.

The oven shall be provided with necessary rails for trolley measuring as Follows:

Dimensions of platform	Length:	15 ft 6 inches
	Width:	07 ft 6 inches
Height (from bed of oven)		01 ft 0 inch

The trolley shall be designed for a load capacity of 25 Ton and will be provided with suitable number of bearing wheels to ensure easy movement of the trolley on two parallel steel rails/ channels to be provided both inside and outside of the oven. Suitable arrangement shall be provided for joining / bridging of the inner and outer rails. The arrangement shall be such that it can be placed in position and removed easily as and when required. A suitable capacity of electric winch with a pulley system to move the loaded trolley into and out of the oven at a speed of about 6m per minute Alternatively a driving cart fitted with electric motor (brand new) and necessary gear mechanism (brand new) may be provided for the purpose.

4.6 VACUUM SYSTEM

A complete unit of Vacuum Pump and 3-phase motor of 5HP Geniune made in England (Brand New) with company Brouchers / Technical Data, capacity of vacuum is 20 inches per hour with pipe line 2 inch.

4.7 HEATING SYSTEM

The oven will be heated with the help of suitable electric heater at a temperature of 120-150C° through series of dissipation coils mounted on ceramic rods lay at both side of the drying chamber bottom. The heaters shall be 3 phase capable of heating the chamber up to 150C° with the specific load of heaters not exceeding 16KW divided both side of the oven from the ambient temperature of 30C° within not more than one hour of its start. The heaters shall be automatically switched off in the events of over temperature in the drying chamber and in the conditions leading to build up of dangerous over pressure in the oven.

4.8 CONDENSER

A water cooled condenser shell type 6 mm width Dia 27 inches & length 33 inches may be provided with 08 No tubes each having 60 mm Dia that is 04 Nos on each side. Flange type fitting at lower side of condenser having drain tank for moisture. Water Tank having two parts of thread type and size 1 inch shall be installed between vacuum out let of the main oven and the vacuum pump. The condenser will have inlet and outlet valves for circulating water and valves for connection to vacuum line of the oven.

4.9 WATER COOLER

One No. wtaer Tank size 28"x28"x30" (M.S Sheet Thickness 4 MM) shall be provided to cool down / normalize the hot water of condenser tank. For this purpose a pump with 1HP motor (Brand New) shall be installed on suitable steel stand which shal circulate water from this water tank to condenser tank. Necessary valves shall be provided for this purpose.

4.10 PROTECTION AND SAFETY

Necessary protection features such as MCBs, motor protection switches and essential safety interlocks to ensure protection of shipment and safety of the operator shall be incorporated. Necessary audible and visual alarms to indicate the faulty operating conditions such as mentioned below shall be provided.

4.11 MEASUREMENTS AND INDICATIONS

The oven shall be provided with at least the following instruments and lamps and alarms installed as required:

- i. Vacuum gauges for vacuum pump / vacuum chamber with automatic tripping switch / gauge on required vacuum level.
- ii. Digital Thermo meters for heater and vacuum chamber accuracy class at least $\pm 5\%$.
- iii. Lamps on the control board for indicating ON/OFF status of various motors / pumps and heaters etc.
- iv. Necessary signalization in the form of audible and visual alarms to indicate faulty condition such as over temperature in heater chamber and or drying chamber. Build up to high pressure in the oven resulting from the failure of vacuum pump or some other malfunction of the equipment.

4.12 CONTROL CABINET

A fully wired control cabinet comprising of the following shall be provided.

- i) Main circuit breaker 200 amp.
- j) Thermo controllers with thermocouple sensors and other for inside temperature of the oven.
- k) Magnetic Connector (new) with over load relays (new) for all motor & heater.
- l) ON / OFF lamps for mains supply, vacuum pump and heaters etc, and fault indication lamps and alarms.
- m) Digital Voltmeter with phase selector switch.
- n) Digital Ammeters.
- o) Control switches and push buttons.
- p) Necessary drawings of main oven and circuit diagram of electric and vacuum system.

SPECIFICATION OF DE-HYDRATION PLANT.

1. Pump 2.2 KW	02 Nos.
2. Vacuum Pump	01 No.
3. Small AC (for Chilling System)	01 No.
4. Control Penal	02 Nos.
5. Tyre	04 Nos.
6. Rubber Pipe 2 inch (100-120 Temperature)	40 Feet.

**SPECIFICATION OF POWER MEASURING DESK UPTO
630 KVA (FOR IRON & COPPER LOSSES)**

Power Measuring Desk for Iron & copper losses measuring set shall be designed for measurement of iron loss and copper loss of distribution transformers up to 630 KVA according to WAPDA specification DDS-84 comprising of control panel / desk, complete with all necessary precision measuring instruments, Volts Meters, AMP Meters and Digital Energy Analyzer having accuracy class at least ± 0.5 to 1 % with 4 different ranges of CT that is 5 A, 25 A, 50 A & 100 A with Motor Generator Set. Three phase main circuit breaker, Indicating Lights, Push Botton for On and Off, Digital Thermometer for Ambient Temperature, Stop watch, Test Lead length 60 feet 04 Core 15mm and auto transformer for voltage control of test voltage from 0-650 volts 3-Phase, 40 Amp per Phase installed. All meters are duly calibrated from Engineering University Lahore or High Voltage lab RAWAT.

SPECIFICATION OF T.T.R SET (3-PHASE)**POWER SUPPLY** 240V AC, 50Hz, 3- phase.**TEST VOLTAGE** 8v, 40v, 80v, AC**AUTORANGING RANGES**

Ratio Range	Display	Resolution	Accuracy
10	1-9.999	0.001	$\pm 0.2\%$ for ratio 5 to 1000 $\pm 1.5\%$ for ratio Beyond 1000
100	10-99.99	0.01	
1000	100-999.9	0.1	
10000	1000-10000	1	
20000	10000-19999	1	

INDICATION4 ½ Digit LED display of ratio.
LCD display 1 x 16 Characters
alphanumeric controlled by processor for
interfacing with keyboard.**ACCURACY** $\pm 0.2\%$ for ratio reading 5 to 1000
 $\pm 1.5\%$ for ranges beyond 1000.**PHASE DEVIATION RANGE** ± 90 DEG.**EXCITATION CURRENT RANGE**

0 TO 500mA

TEST PLAN STORAGE

75 readings X 20 transformers

PRINTER

In built Dot Matrix

PORT

RS232

SOFTWARE

Windows Based

SAFETY SPECIFICATIONSComplying IEC 61010,
Complying EMI EMC EN61326**WEIGHT**

Approx. 17Kg

SPECIFICATION OF ELECTRIC WELDING PLANT OIL IMMERSED.

1. Width	01 Feet.
2. Length	02 Feet.
3. Height	2 Feet 6 Inches.
4. Current Ranges	25 Amp, 50 Amp, 100 Amp, 150 Amp, 200 Amp, 250 Amp, 300 Amp & 400 Amp.
5. Welding Lead (Copper)	10 mm Length 30 Feet.
6. Earthing Lead (Copper)	10 mm Length 30 Feet.
7. Fiber Welding Holder	01 No.
8. Hand Screen Sheet	01 No.
9. Head Screen Sheet	01 No.
10. Wheels for Moving	04 Nos

SPECIFICATION OF GAS WELDING SET

Gas Welding Set having 01 No. Cylinder of Oxygen 240 Cft with pressure Gauge, Regulator and 01 No. cylinder of LPG 12 Kg. with Regulator. Both 02 No. Cylinders are mounted on trolley for moving purpose. 02 No. rubber pipe with Gas Welding / Cutting Torch also provide of length 60 feet. Both cylinders are tested by Competent Authority.