

Standard Bidding Document

Tender No. 1383/26 PROCUREMENT OF SINGLE PHASE AMI SMART
ENERGY METERS

(Goods)

National

Single Stage-One Envelope



May 18, 2026

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INVITATION TO BIDS PROCUREMENT OF GOODS

1. The **Sukkur Electric Power Company (SEPCO) (MM Directorate)** has reserved Funds for the procurement planned for FY **2026-27**. The **Sukkur Electric Power Company (SEPCO) (MM Directorate)** intends to apply part of the proceeds of this Fund to cover eligible payments under the contract for the "**Tender No. 1383/26 PROCUREMENT OF SINGLE PHASE AMI SMART ENERGY METERS**".

2. The **Sukkur Electric Power Company (SEPCO) (MM Directorate)** invites E-bids from eligible Bidders for procurement of goods described in the bidding documents on **EPADS v2.0**.

3. **Single Stage-One Envelope** will be used by adopting **Least Cost Based Selection (LCBS)** Technique for the subject procurement, in line with the Public Procurement Rules, 2004 and any Regulations, Regulatory Guides, Procurement Guidelines or Instructions issued by the Authority from time to time.

4. All Bids must be accompanied by a Bid Security amounting described in Bid Security Section in Bidding Document in the form of **Pay Order, Banker's Cheque, Call at Deposit, Bank Guarantee, Demand Draft**. Where **Bid Security** is not required by the **Procuring Agency**, Bidders are required to furnish **Bid Security Declaration** as specified in Bidding Document.

5. E-Bidding documents, containing detailed terms & conditions, specifications and requirements etc. are available on **e-Pak Acquisition and Disposal System (EPADS)** at <https://vendors.epads.gov.pk/>.

6. Bidder(s) are required to get themselves registered on **EPADS v2.0** on or before **Tuesday, June 9, 2026 10:30 AM**. E-bids will be opened using **EPADS v2.0** on the same day at **Tuesday, June 9, 2026 12:30 PM**. Manual submission of Bids shall not be entertained. Those vendors who have not yet registered on the new version of **EPADS v2.0**, may register themselves on <https://vendors.epads.gov.pk/>. A tutorial to explain the registration process is available at <https://www.youtube.com/watch?v=MNW6T38v7tc>

7. In terms of Rules 48 of Public Procurement Rules, 2004 Grievance Redressal Committee (GRC) is notified for the subject procurement and notification copy is available on the procuring agency's website and on Authority's website at (www.ppra.org.pk).

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Instructions to Bidders

A. Introduction

1.Scope of Bids

1.1 The Procuring Agency (PA), as indicated in the **Bids Data Sheet (BDS)** invites Bids **through EPADS v2.0** for the provision of Goods for as specified in the BDS and **in Section V - Evaluation Criteria, Specifications & Schedule of Requirements**. The name, identification, and number of items/deliverables are provided in the **BDS**. The successful Bidders will be expected to provide the goods within the specified period and timeline(s) as stated in the **BDS**.

2. Source of Funds

2.1 Source of funds is referred in Clause-1 of Invitation for Bids.

3. Eligible Bidders

3.1 A Bidder may be natural person, company or firm or public or semi-public agency of Pakistan or any foreign country, or any combination of them with a formal existing agreement (on Judicial Papers) in the form of a joint venture, consortium, or association. In the case of a joint venture, consortium, or association, all members shall be jointly and severally liable for the execution of the Contract in accordance with the terms and conditions of the Contract. The joint venture, consortium, or association shall nominate a Lead Member as nominated in the BDS, who shall have the authority to conduct all business for and on behalf of any and all the members of the joint venture, consortium, or association during the Bidding process, and in case of award of contract, during the execution of the contract.

3.2 Verifiable copy of the agreement that forms a joint venture, consortium or association shall be required to be submitted as part of the Bid.

3.3 The appointment of Lead Member in the joint venture, consortium, or association shall be confirmed by submission of a valid Power of Attorney to the Procuring Agency.

3.4 Any bid submitted by the joint venture, consortium or association shall indicate the part of proposed contract to be performed by each party and each party shall be evaluated (or post qualified if required) with respect to its contribution only, and the responsibilities of each party shall not be substantially altered without prior written approval of the Procuring Agency and in line with

any instructions issued by the Authority.

(The limit on the number of members of JV or Consortium or Association may be prescribed in BDS, in accordance with the guidelines issued by the PPRA).

3.5 The invitation for Bids is open to all prospective suppliers, manufacturers, or authorized agents / dealers subject to any provisions of incorporation or licensing by the respective national incorporating agency or statutory body established for that particular trade or business. Procuring agencies shall specify the registration/licensing requirements for the foreign bidders keeping in view the requirement of that business.

3.6 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest with one or more parties in this Bidding process, if they:

1. are associated or have been associated in the past, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring Agency to provide consulting services for the preparation of the design, specifications and other documents to be used for the procurement of the Goods to be purchased under this Invitation for Bids.
2. have controlling shareholders in common; or
3. receive or have received any direct or indirect subsidy from any of them; or
4. have the same legal representative for purposes of this Bid; or
5. have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bids of another Bidder, or influence the decisions of the Procuring Agency regarding this Bidding process; or
6. Submit more than one Bid in this Bidding process.

3.7 A Bidder may be ineligible if –

1. he is declared bankrupt or, in the case of company or firm, insolvent;
2. payments in favor of the Bidder is suspended in accordance with the judgment of a court of law other than a judgment declaring bankruptcy and resulting (in accordance with the national laws) in the total or partial loss of the right to administer and dispose of its property;

3. the Bidder is convicted, by a final judgment, of any offence involving professional conduct;

4. the Bidder is blacklisted locally or by international organizations and hence debarred due to involvement in corrupt and fraudulent practices, or performance failure or due to breach of Bid securing declaration.

3.8 As and when required, bidders shall provide to the Procuring Agency evidence of their eligibility, proof of compliance with the necessary legal requirements to carry out the contract effectively.

3.9 Bidders shall submit Bids relating to the nature, conditions and modalities of sub-contracting wherever the sub-contracting of any elements of the contract amounting to more than ten (10) percent of the Bid price is envisaged.

4. Eligible Goods and Related Services

4.1 All goods and related services to be supplied under the contract shall have their origin in eligible source countries, and all expenditures made under the contract will be limited to such goods and services. For purpose of this Bid, ineligible countries are the countries declared ineligible by the Federal Government.

5. One Bid per Bidder

5.1 A bidder shall submit only one Bid, in the same bidding process, either individually as a Bidder or as a member in a joint venture or any similar arrangement.

5.2 The Bidder shall not engage a subcontractor for any portion of the contract if the value of such subcontracting exceeds thirty percent (30%) of the total contract amount.

6. Cost of Bidding

6.1 Any cost incurred by the bidder relating to the preparation and submission of its Bid shall be borne by the bidder, and the Procuring Agency shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

B. Bidding Documents

7. Contents of Bidding Document

7.1 The Goods required, Bidding procedures, and terms and conditions of the contract are prescribed in the Bidding Documents. In addition to the Invitation for Bids, the Bidding documents which should be read in conjunction with any addenda issued in accordance with **ITB 9.1** include:

Section I -Invitation to Bids

Section II Instructions to Bidders (ITB)

Section III Bid Data Sheet (BDS)

Section IV Evaluation Criteria, Specifications, Schedule of Requirements

Section V Bid Forms

Section VI General Conditions of Contract (GCC)

Section VII Special Conditions of Contract (SCC)

Section VIII Contract Forms

7.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding documents. Failure to furnish all the information required in the Bidding documents through **EPADS v2.0** will be at the Bidder's risk and may result in the rejection of his Bids.

8. Clarification of Bidding documents

8.1 A prospective Bidder requiring any clarification of the Bidding documents may notify the Procuring Agency through **EPADS v2.0**.

8.2 The Procuring Agency will within three (3) working days after receiving the request for clarification, respond to any request for clarification through **EPADS v2.0** provided that such request is received not later than three (03) days prior to the deadline for the submission of Bids as prescribed in **ITB 22**

8.3 Copies of the Procuring Agency's response will be forwarded to all identified Prospective Bidders through **EPADS v2.0**, including a description of the inquiry, but without identifying its source.

8.4 Should the Procuring Agency deem it necessary to amend the Bidding document as a result of a clarification, it shall do so following the procedure under **ITB 9**.

8.5 If indicated **in the BDS**, the Bidder's designated representative is invited at the Bidder's cost to attend a pre-Bid meeting at the place, date and time mentioned **in the BDS**. During this pre-Bid meeting, prospective Bidders may request clarification of the schedule of requirement, the Evaluation Criteria or any other aspects of the Bidding document.

8.6 Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be uploaded on **EPADS v2.0**. Any modification to the Bidding documents that may become necessary as a result of the pre-Bid meeting shall be made by the Procuring Agency exclusively through the use of an Addendum pursuant to **ITB 9**. Non-attendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

9. Amendment of Bidding documents

9.1 Before the deadline for submission of Bids, the Procuring Agency for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder or Pre-Bid meeting may modify the Bidding documents by issuing addenda through **EPADS v2.0**.

9.2 The Procuring Agency shall promptly publish the addendum through **EPADS v2.0**.

9.3 Any addendum issued including the notice of any extension of the deadline shall also be communicated through EPADS v2.0 to all the bidders who have already submitted their bids. Such bidders shall have the right to withdraw their already submitted bid and re-submit the revised bid prior to the original or extended bid submission deadline.

9.4 To give prospective Bidders reasonable time in which to take an addendum/corrigendum into account in preparing their Bids, the Procuring Agency may, at its discretion, extend the deadline for the submission of Bids through **EPADS v2.0**:

Provided that the Procuring Agency shall extend the deadline for submission of Bids, if such an addendum is issued within last three (03) days of the Bids submission deadline.

C. Preparation of Bids

10. Language of Bid

10.1 The Bid prepared by the bidder, as well as all correspondence and documents relating to the Bids exchanged by the Bidder and the Procuring Agency shall be written in the English language unless otherwise specified in the BDS. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant pages in the English language unless otherwise specified in the **BDS**, in which case, for purposes of interpretation of the Bidder, the translation shall govern.

11. Documents and samples Constituting the Bid

11.1 The Bid prepared by the Bidder shall constitute the documents required in the **BDS**.

Details of sample(s) where applicable and requested in the BDS.

1. Documentary evidence established in accordance with ITB that the Bidder is eligible and/or qualified for the subject bidding process;
2. Documentary evidence establish that the Bidder has been authorized by the manufacturer to deliver the goods into Pakistan, where required and where the supplier is not the manufacturer of those goods;
3. Documentary evidence establish that the goods and related services to be supplied by the Bidder are eligible goods and services, and conform to the Bidding Documents;
4. Bid security or Bid Securing Declaration furnished in accordance with **ITB 18**.

12. Documents Establishing Eligibility of the Goods and Conformity to Bidding documents

12.1 To establish the conformity of the bidder to the Bidding document, the Bidder shall furnish as part of its Bids the documentary evidence that Goods provided conform to the technical specifications and standards.

13. Documents Establishing Eligibility and Qualification of the Bidder

13.1 The Bidder shall furnish, as part of its Bid, all those documents establishing the Bidder's eligibility to participate in the Bidding process and/or its qualification to perform the contract if its Bid is accepted.

14. Form of Bids

14.1 The Bidder shall fill the Form of Bid furnished in the Bidding documents. The Bids Form must be completed without any alterations to its format and no substitute shall be accepted.

15. Bids Prices

15.1 The Bids Prices quoted by the Bidder in the Form of Bid and in the Price Schedules shall conform to the requirements specified below or exclusively mentioned hereafter in the Bidding documents.

15.2 All items in the Schedule of Requirement must be listed and priced separately in the Price Schedule(s). If a Price Schedule shows items listed but not priced and neither explicitly denied, their prices shall be construed to be included in the prices of other items.

15.3 Items not listed in the Price Schedule shall be assumed not to be included in the Bid, and provided that the Bid is still substantially responsive in their absence or due to their nominal nature, the corresponding average price of the respective item(s) of the remaining substantially responsive Bidder(s) shall be construed to be the price of those missing item(s)

15.4 The Bid price to be quoted in the Form of Bid in accordance with **ITB 14.1** shall be the total price of the Bid.

15.5 The Bidder shall indicate on the appropriate Price Schedule, the unit prices (where applicable) and total Bid price of the Goods it proposes to provide under the contract.

15.6 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account. A Bid submitted with an adjustable price will be treated as non-responsive and shall be rejected.

16. Bids Currencies

16.1 Prices shall be quoted in Pakistani Rupees unless otherwise specified in the BDS in accordance with Rule 30(2) of the Public Procurement Rules, 2004.

17. Bids Validity Period

17.1 Bids shall remain valid for the period specified in the **BDS** after the Bid submission deadline prescribed by the Procuring Agency. A Bid valid for a shorter period shall be rejected by the Procuring Agency as non-responsive. The period of Bid validity will be determined from the complementary Bid securing instrument, i.e. the expiry period of Bid Security or Bids Securing Declaration as the case may be.

17.2 The procuring agency shall ordinarily be under an obligation to process and evaluate the bid and to issue letter of award within the stipulated bid validity period.

17.3 Under exceptional circumstances, prior to the expiration of the initial Bid validity period, the Procuring Agency may request the Bidders' consent to an extension of the period of validity of their Bids only once through **EPADS v2.0**, for the period not more than the period of initial bid validity. The Bid Security provided under **ITB 18** shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid security or causing to be executed its Bid Securing Declaration. A Bidder agreeing to the request will not be required nor permitted to modify its Bid, but will be required to extend the validity of its Bid Security or Bid Securing Declaration for the period of the extension.

18. Bid Security or Bid Securing Declaration

18.1 The Bidder shall furnish as part of its Bid, a Bid Security in accordance with Rule 25 of the Public Procurement Rules, 2004.

18.2 The original Bid Security shall be enclosed within the sealed envelope and to be submitted physically before closing time for submission of bids. Whereas, scanned copy of bid security shall be uploaded electronically through EPADS v2.0 before closing hours for submission of bids.

18.3 The Bidder who failed to submit the original Bids security before the submission deadline shall be disqualified straightaway.

18.4 The Bid Security or Bid Securing Declaration is required to protect the Procuring Agency against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to **ITB 18.7**.

18.5 The Bid Security shall be denominated in the local currency, and it shall be a Bank Draft in the name of the Procuring Agency and valid for twenty-eight (28) days beyond the end of the validity of the Bid. This shall also apply if the period

for Bids/Bid Validity is extended. In either case, the form must include the complete name of the Bidder.

18.6 The Bid Security shall be payable promptly upon written demand by the Procuring Agency in case any of the conditions listed in **ITB 18** are invoked.

18.7 Unsuccessful Bidders' Bid Security will be discharged or returned as promptly as possible, however in no case later than thirty (30) days after the expiration of the period of Bids Validity prescribed by the Procuring Agency pursuant to **ITB 17**. The Procuring Agency shall make no claim to the amount of the Bid Security, and shall promptly return the Bid Security document, after whichever of the following that occurs earliest:

1. the expiry of the Bid Security;
2. the entry into force of a procurement contract and the provision of a Performance Guarantee, for the performance of the contract if such a guarantee, is required by the Bid documents;
3. the rejection by the Procuring Agency of all Bids;
4. the withdrawal of the Bids prior to the deadline for the submission of Bids, unless the Bids documents stipulate that no such withdrawal is permitted.

18.8 The successful Bidder's Bids Security will be discharged upon the Bidder signing the contract, or furnishing the Performance Guarantee.

18.9 The Bid Security may be forfeited or the Bid Securing Declaration executed:

1. if a Bidder:
 2. withdraws its Bid during the period of Bid Validity as specified by the Procuring Agency, and referred by the Bidder on the Form of Bids except as provided for in **ITB 17.2**; or
 3. does not accept the correction of errors; or
 4. in the case of a successful Bidder, if the Bidder fails:
 5. to sign the contract; or
 6. to furnish Performance Guarantee.

19. Withdrawal, Substitution, and Modification of Bid

19.1 Before Bid submission deadline, any Bidder may withdraw, substitute, or modify its Bid after it has been submitted through EPADS v2.0. Bids requested to be withdrawn, shall be returned unopened to the Bidders through **EPADS v2.0**.

20. Format and Signing of Bid

20.1 The Bidder shall prepare and submit Bids with due diligence after carefully reading all the terms and condition **before bid submission deadline** through EPADS v2.0.

D. Submission of Bids

21. Submission of Bids through EPADS v2.0

21.1 The Technical and Financial Bids if required to submitted, shall be submitted on **EPADS v2.0**.

22. Deadline for Submission of Bids

22.1 Bids shall be received by the Procuring Agency through **EPADS v2.0** before bid submission deadline.

22.2 The Procuring Agency may, under exceptional circumstances, extend the deadline for the submission of Bids, after recording reasons in writing and in an equal opportunity manner.

In such case, all rights and obligations of the Procuring Agency and the Bidders that were previously governed by the original deadline shall thereafter be subject to the revised deadline.

E. Opening and Evaluation of Bids

23. Opening of Bids

23.1 The Bid Evaluation Committee of the Procuring Agency shall open all Bids through the EPADS v2.0, on the date and time specified in the Bid Data Sheet (BDS).

23.2 The Bid Evaluation Committee **shall generate minutes through EPADS v2.0 containing brief details of bid opening process.** The record of the Bid opening shall include, as a minimum: the name of the Bidder, the Bid price if applicable, and the presence or absence of a Bid Security or Bid Securing Declaration.

23.3 The procuring agency shall live broadcast the opening of bids on national media or on their website or digital channels, if the volume of procurement exceeds five hundred million rupees in case of goods and services and one thousand million rupees in case of works.

23.4 In case the date of opening of bid has been declared as public holiday or the procuring agency fail to open bid due to any EPADS v2.0 related issues, the submission and opening of bids shall be shifted to the next working day on the same time.

23.5 In case of Single Stage One Envelope Procedure, the Bidders names, the Bid prices, the total amount of each Bid and, the presence or absence of Bid Security, Bid Securing Declaration and such other details as the Procuring Agency may consider appropriate, will be announced by the Bid Evaluation Committee.

24. Clarification of Bids

24.1 To assist in the examination, evaluation and comparison of Bids of the Bidders, the Procuring Agency may, ask any Bidder for a clarification of its Bid including breakdown of prices.

24.2 The request for clarification and the response shall be sought through EPADS v2.0 **before three days prior to the deadline for submission of bids.** No change in the prices or substance of the Bids shall be sought, offered, or permitted.

24.3 The alteration or modification in the BIDS which in any way affect the following parameters will be considered as a change in the substance of a Bids:

1. evaluation & qualification criteria;
2. required scope of work or specifications;
3. all securities requirements;
4. tax requirements;

5. terms and conditions of Bidding documents.

6. change in the ranking of the Bidder

24.4 From the time of Bids opening to the time of Contract award if any Bidder wishes to contact the Procuring Agency on any matter related to the Bids it should do so through **EPADS v2.0**.

25. Preliminary Examination of Bids

25.1 Prior to the detailed evaluation of Bids, the Procuring Agency will determine whether each Bid:

1. meets the eligibility criteria defined in **ITB 3**;
2. has been prepared as per the format and contents defined by the Procuring Agency in the Bidding documents;
3. is accompanied by the required securities; and
4. is substantially responsive to the requirements of the Bidding documents.

25.2 The Procuring Agency's determination of a Bid's responsiveness will be based on the contents of the Bid itself.

25.3A substantially responsive Bid is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one that: -

1. affects in any substantial way the scope, quality, or performance of the Goods;
2. limits in any substantial way, inconsistent with the Bidding documents, the Procuring Agency's rights or the Bidders obligations under the Contract; or
3. if rectified, would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

25.3 If a Bids is not substantially responsive, it will be rejected by the Procuring Agency and may not subsequently be evaluated for complete technical responsiveness.

26. Examination of Terms and Conditions; Technical Evaluation

26.1 The Procuring Agency shall examine the Bids to confirm that all terms and conditions specified in the **GCC** and the **SCC** have been accepted by the Bidder without any material deviation or reservation.

26.2 The Procuring Agency shall evaluate the technical aspects of the Bids submitted, to confirm that all requirements specified in Schedule of Requirements and Technical Specifications of the Bidding documents have been met without material deviation or reservation.

26.3 If after the examination of the terms and conditions and the technical evaluation, the Procuring Agency determines that the Bid is not substantially responsive in accordance with **ITB 25.2**, it shall reject the Bid.

27. Correction of Errors

27.1 Bids determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows: -

1. if there is a discrepancy between unit prices and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected, unless in the opinion of the Procuring Agency there is an obvious misplacement of the decimal point in the unit price, in which the total price as quoted shall govern and the unit price shall be corrected;
2. if there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected; and
3. where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.
4. Where there is discrepancy between grand total of price schedule and amount mentioned on the Form of Bids, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.

27.2 The amount stated in the Bid will, be adjusted by the Procuring Agency in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, its Bid will then be rejected, and the Bid Security may be forfeited or the Bids Securing Declaration may be executed.

28. Conversion to Single Currency

28.1 To facilitate evaluation and comparison, the Procuring Agency will convert all Bids prices expressed in the amounts in various currencies in which the Bids prices are payable. For the purposes of comparison of bids quoted in different currencies, the price shall be converted into a single currency specified in the bidding documents. The rate of exchange shall be the selling rate prevailing on the date of opening of financial bids specified in the bidding documents, in accordance with weighted average customer exchange rates list issued by the State Bank of Pakistan on that day.

29. Evaluation of Bids

29.1 The Bids, quotations, or proposals shall be evaluated by the respective evaluation committees as per evaluation criteria described in the Bidding Documents in accordance with Rule 29 and 30 of the Public Procurement Rules, 2004.

1. Least Cost Based Selection (LCBS)

After meeting the requirements of eligibility, qualification and substantial responsiveness, the bid in compliance with all the mandatory (technical) specifications/requirements and/or requisite quality threshold (if any), and having lowest evaluated cost (or financial proposal) shall be considered Successful Bid.

2. Quality and Cost Based Selection (QCBS)

In such combination, there shall be some specific weightage of both the technical features and financial aspects of the proposal. The financial marks shall be awarded on the basis of inverse proportion calculations. The successful bid shall be declared, on the basis of combined evaluation.

3. Quality Based Selection (QBS)

After meeting the requirements of eligibility, qualification and substantial responsiveness the bid in compliance with all the mandatory (technical) specifications/requirements and attaining highest marks in the Technical Evaluation considering all other qualitative and/or quantitative parameters (or point rated criteria) for technical proposal(s) such as working methodology, implementation plan, resource allocation, additional functionalities, risk management approach, knowledge transfer techniques, post implementation methodology etc. shall be treated as highest ranked bid. Later on, the financial proposal of highest ranked bidder shall be opened, however, in case of failure to proceed further with such a bidder, the procuring agency may resort to second

highest bidder and so on.

29.2 In case of tie of bids, the bidders shall be provided an opportunity to offer their best and final monetary offer through EPADS v2.0. However, in no case the rates shall be higher than the original financial bids.

30. Domestic Preference

30.1 The procuring agency shall evaluate and compare bids, allow for preference to domestic bidders, while competing with the international bidders in accordance with the policies of Federal Government.

The percentage of preference, to be accorded shall be clearly mentioned in the bidding documents under the bid evaluation criteria.

31. Determination of Successful Bid

31.1 Selection technique will be adopted for determining the Successful Bid in accordance with the criteria referred in the BDS or prescribed in the separate section titled as Evaluation Criteria.

31.2 In case where the Procuring Agency adopts the Cost Based Evaluation Technique and, the Bid with the lowest evaluated price from amongst those which are eligible, compliant and substantially responsive shall be the Successful Bid.

31.3 The Procuring Agency may adopt the Quality & Cost Based Selection Technique due to the following two reasons:

1. Where the Procuring Agency knows about the main features, usage and output of the products; however not clear about the complete features, technical specifications and functionalities of the goods to be procured and requires the bidders to submit their proposals defining those features, specifications and functionalities; or

2. Where the Procuring Agency, in addition to the mandatory requirements and mandatory technical specifications, requires parameters specified in EvaluationCriteria to be evaluated while determining the quality of the goods.

31.4 In such cases, the Procuring Agency may allocate certain weightage to these factors as a part of Evaluation Criteria, and may determine the ranking of the bidders on the basis of combined evaluation in accordance with provisions of Rule 2(1)(h) of the Public Procurement Rules, 2004.

32. Abnormally Low Financial Bids

32.1 Where the Bid price is considered to be abnormally low, the Procuring Agency shall perform price analysis either during determination of Successful Bids or as a part of the post-qualification process.

32.2 The Procuring Agency may reject an Abnormally low financial bids.

32.3 In order to identify the Abnormally Low Bids (ALB) following approaches can be considered to minimize the scope of subjectivity:

1. Comparing the Bids price with the cost estimate;
2. Comparing the Bids price with the Bids offered by other Bidders submitting substantially responsive Bids; and
3. Comparing the Bids price with prices paid in similar contracts in the recent past either government- or development partner-funded.

32.4 The Procuring Agency will determine to its satisfaction whether the Bidder that is selected as having submitted the successful bid is qualified to perform the contract satisfactorily.

32.5 The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Procuring Agency deems necessary and appropriate. Factors not included in these Bidding documents shall not be used in the evaluation of the Bidders' qualifications.

32.6 Procuring Agency may seek "Certificate for Independent Price Determination" from the Bidder and the results of reference checks may be used in determining an award of contract.

Explanation: The Certificate shall be furnished by the Bidder. The Bidder shall certify that the price is determined keeping in view of all the essential aspects such as raw material, its processing, value addition, optimization of resources due to economy of scale, transportation, insurance and margin of profit etc.

32.7 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's Bids, in which event the Procuring Agency will proceed to the next ranked Bidder to make a similar determination of that Bidder's capabilities to perform

satisfactorily.

F. Award of Contract

33. Criteria of Award

33.1 The Procuring Agency will award the Contract to the Bidder whose Bids has been determined to be substantially responsive to the Bidding documents and who has been declared as Most Advantageous Bidder.

34. Negotiations

34.1 The procuring agency shall not engage in negotiations with respect to scope and price with the bidder except when the procuring agency conducts a procurement using direct **or negotiated** contracting or a request for proposals with evaluation based on quality alone.

34.2 The procuring agency may negotiate with the most advantageous bid with a view to streamline the work or task execution, at the time of contract finalization on methodology, work plan, staffing, finalizing payment arrangements, delivery arrangements, minor amendments to the special conditions of the contract.

35. Procuring Agency Right to reject all bids

35.1 The Procuring Agency reserves the right to reject all bids or proposals at any time prior to the issuance of the Letter of Award, without incurring any liability, in accordance with Rule 33 of the Public Procurement Rules, 2004.

36. Procuring Agency's Right to Vary Quantities at the Time of Award

36.1 The Procuring Agency reserves the right at the time of contract award to increase or decrease the **quantity of** Goods originally specified in these Bidding documents provided this does not exceed **by** 15%, without any change in unit price or other terms and conditions of the Bids and Bidding documents.

37. Notification of Award

37.1 Prior to the award of contract, the procuring agency shall announce and publish the result of bid evaluation on **EPADS v2.0** in accordance with Rule 35

of the Public Procurement Rules, 2004.

37.2 The Bidder whose Bids has been accepted will be notified of the award by the Procuring Agency prior to expiration of the Bids/Bid Validity period. The Letter of Award will state the sum that the Procuring Agency will pay the successful Bidder in consideration for the delivery of Goods as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price).

37.3 The Letter of award will constitute the formation of the Contract, subject to the Bidder furnishing the Performance Guarantee and signing of the contract.

38. Signing of Contract

38.1 Promptly after issuance of Letter of award, Procuring Agency shall send the successful Bidder the draft Contract, incorporating all terms and conditions as agreed by the parties to the contract.

38.2 Immediately after the Redressal of grievance by the GRC (if any), mandatory standstill period in accordance with Rule 35 of the Public Procurement Rules, 2004 and **after fulfillment of all condition's precedent** of the Contract Form, the successful Bidder and the Procuring Agency shall sign the Contract.

39. Corrupt & Fraudulent Practices

39.1 Procuring Agencies (including beneficiaries of Government funded projects and procurement) as well as Bidders/Contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts, and will avoid to engage in any corrupt and fraudulent practices.

F. Grievance Redressal & Complaint Review Mechanism

40. Constitution of Grievance Redressal

40.1 The Grievance Redressal Committee shall address the grievance, if any submitted by any party, including the bidder, in accordance with Rule 48 of the Public Procurement Rules, 2004 to be read with Redressal of Grievances Regulations, 2021.

40.2 In case if any party or the bidder is not satisfied with the decision of the GRC or if it fails to decide within ten days, the bidder or the party may file an appeal before the Appellate Committee of the Authority in accordance with Rule 48 of the Public Procurement Rules, 2004 to be read with Redressal of Grievances Regulations, 2021.

G. Mechanism of Blacklisting

41. Mechanism of Blacklisting

41.1 The Procuring Agency shall initiate blacklisting proceedings against any bidder, supplier, or contractor in accordance with the Mechanism for Blacklisting Regulations, 2024, read with Rule 19 of the Public Procurement Rules, 2004.

41.2 The blacklisted/debarred bidder may file the review petition before the Authority in accordance with Rule 19 of the Public Procurement Rules, 2004 to be read with Procedure of filing and disposal of Review Petitions Regulations, 2021.





Bid Data Sheet

Bids Data Sheet (BDS)

The following specific data for the procurement of Goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

BDS Clause Number

ITB Number

Amendments of, and Supplements to, Clauses in the Instruction to Bidders

A. Introduction

BDS Clause Number 1

ITB Number 1.1

Name of Procuring Agency: **Sukkur Electric Power Company (SEPCO) (MM Directorate)**

The subject of procurement is: **Tender No. 1383/26 PROCUREMENT OF SINGLE PHASE AMI SMART ENERGY METERS**

Expected commencement date: **Wednesday, June 17, 2026**

BDS Clause Number 2

ITB Number 2.1

Financial year for the operations of the Procuring Agency: **2026-27**

Name and identification number of the Contract: **P33704**

BDS Clause Number 3

ITB Clause Number 3.1

JV/Consortium or Association Allowed: **Yes**

Number of JV/Consortium Members: **3**

see section of eligibility criteria.

B. Bidding Documents

BDS Clause Number 4

ITB Number 8.1

The Bidders may seek clarifications through **EPADS v2.0** : Clarification Date: Wednesday, June 3, 2026

Pre-Bid Meeting: Tuesday, June 2, 2026 10:30 AM

Venue: SEPCO Head Office, Admin Block, Old Thermal Power Station, Sukkur. The meeting shall be conducted physically; however, prospective bidders may join through provision of zoom link via Contact No. 0306-3775784

C. Preparation of Bids

BDS Clause Number 5

ITB Number 10.1

The Language of all correspondences and documents related to the Bids shall be in: **English**

List of documents required along with the bid:

1. i) Certificate that General Conditions of Contract for purchases by WAPDA dated 12/08/1984 amended up to date and latest purchase procedure are acceptable to the bidder and are hereby agreed to by the bidder
2. ii) Fix Bid Security amount mentioned in bidding Doc for registered/unregistered firms of the total value of tender issued by a Scheduled Bank of Pakistan only.
3. iii) Certificate that the Tender offered material is in accordance with the WAPDA / Tender Specifications (amended to date).
4. iv) List of any deviations or reservations from the Bid/Specification.
5. v) Copy of letter of Prequalification for the material quoted in tender with WAPDA/DISCO.
6. vi) Copy of Letter of Registration with WAPDA/DISCO.
7. vii) Technical data as required in the WAPDA / PEPCO Specification and Literature in English giving out salient feature of the quoted items.
8. viii) Samples of the all the quoted items should be submitted with the bid otherwise the bid shall be liable for rejection.
9. ix) Make, Model and Country of origin of all the quoted items should also be clearly mentioned in bid.

10. x) Authorization letter (If any) of the foreign principal / manufacturer for local agents.

11. xi) (Integrity Pact) Declaration of fees, commission and brokerage etc. payable by the suppliers of goods, services and works in contracts worth Rs 10 Million or More.

12. xii) Copy of valid Prototype approval from Chief Engineer (S&S) NTDC and Latest UDIL Certificate.

13. xiii) Bank Annual turnover certificate along of last three years (03)

14. xiv) Providing last three years Bank Statement + Auditor Reports

15. NOTE : Bid Bond all other relevant / technical documents / information should be attached with Tender documents.

BDS Clause Number 6

ITB Number 11.1

Items/Lots and threere relateddocuments:

See section items and Lots

BDS Clause Number 7

ITB Number 12.1

Items / Lots Specifications:

see section of items specifications.

BDS Clause Number 8

ITB Number 15.6

The price shall be **Fixed**.

BDS Clause Number 9

ITB Number 16.1

Currency of the Bids shall be : **PKR**

BDS Clause Number 10

ITB Number 17.1

The Bids/Bid Validity period shall be: **120 Days**

BDS Clause Number 11

ITB Number 18.1

The amount of Bid Security shall be as defined in Bid Security Section for items and lots given in **BDS 6**

The Bid Security shall be in the form of: **Pay Order, Banker's Cheque, Call at Deposit, Bank Guarantee, Demand Draft**

D. Submission of Bids

BDS Clause Number 12

ITB Number 20.1

Bid shall be submitted online on EPADS v2.0 whereas hard copy of the bid security should be submitted to the following;

Office Of Manager Material Management, Old thermal power Station, SEPCO HQ ,Sukkur before bid submission deadline.

Bids that are not submitted on EPADS v2.0 shall be disqualified.

The deadline for Bids submission is: **Tuesday, June 9, 2026 10:30 AM**

E. Opening and Evaluation of Bids

BDS Clause Number 13

ITB Number 23.1

The Bids opening shall take place on **EPADS v2.0**.

Day : **Tuesday**

Date: **Tuesday, June 9, 2026**

Time : **12:30 PM**

BDS Clause Number 14

ITB Number 31.1

Selection technique adopted will be: **Least Cost Based Selection (LCBS)**
see Evaluation Criteria

F. Review of Procurement Decisions

BDS Clause Number 15

ITB Number 41.1

Grievance against this procurement shall be submitted online on EPADS v2.0.

Arbitrator shall be appointed by mutual consent of the both parties.

Eligibility Criteria

Bidder's Type	Required Registration
Individual / Individual Consultant	NADRA CITIZENSHIP (CNIC/NICOP)
Sole Proprietorship	FBR (NTN)
Partnership Firm	FBR (GSTN)
Company (Private Limited)	PEC
Company (Public Limited)	
Company (Holding Company)	
Company (Limited by Guarantee)	
State Owned Enterprise (Private Limited)	
State Owned Enterprise (Public Limited)	

Eligibility Criteria	Document
i. Local Manufacturer/Vendor: The bidder must be pre-qualified and duly registered with the Pakistan Engineering Council (PEC) under the relevant specialized codes. The bidder shall be pre-qualified with SEPCO, any DISCOs, NTDC, GENCOs, and/or any other WAPDA formations under the relevant category of the material being procured.	Yes
The bidder should be registered with income tax & sales tax departments of FBR	Yes

As per direction of FBR dated 3.9.2015 conveyed vide CE (operation) PEPCO vide letter No.1918-28dated.17.09.2025, only registered suppliers who are on Active Taxpayer List (ATL) of FBR, are eligible to supplygoods / services to SEPCO	Yes
The bidder should have at least 02-years' experience of supply of offered equipment / material / services of the same nature or relevant material to same category to SEPCO / DISCO/any other WAPDA formation. In case bidder/manufacturer fails to fulfill the criteria, its bid will be considered non-responsive	Yes
At-least (02) number of Purchase Orders and their relevant GRNs/Completion Certificates/ICs of same nature / type to be attached with the bid. In case bidder/manufacturer fails to fulfill the criteria, its bid will be considered nonresponsive	Yes
Note: i-Non-submission of said documents / certificates shall render the bid non-responsive. ii-Experience will be counted from date of submitted P.O of relevant material. iii-Same nature means required tender item, used in DISCOs / WAPDA / KE /NGC (as per NTDC /NGC Specifications) and relevant category material means material of M5 category supplied.	Yes
Bids may liable to be rejected and declared as rejected/non-responsive forthwith if: Material is not as per required scope of work and specifications(Amended todote)	No
Bids may liable to be rejected and declared as rejected/non-responsive forthwith if: Firm is not as per Tax requirements i.e., the bidder should have registered with Income Tax & Sales Tax Department and be listed on Active Taxpayer List (ATL).	Yes
Bids may liable to be rejected and declared as rejected/non-responsive forthwith if In the event that the total amount of pending or threatened litigations, arbitration and other claims represents twenty five percent (25%) of the Bidder's net worth.	No
Bids may liable to be rejected and declared as rejected/non-responsive forthwith if Financial statements and documents to ascertain the financial health of bidder not attached (In case of Litigation only)	Yes

<p>The material shall be supplied strictly according (As per Specification of WAPDA/NTDC/PEPCO/SEPCO/PITC) (Amended to date) i) DDS-65:2003 (Amended to date) ii) DDS-98:2011 (Amended to date) iii) DDS-110:2012 (Amended to date) iv) IEC-62055-31 (For Relay) UDIL (Latest Version as time of issuance of LOI) and the quantity mentioned in BOQ</p>	<p>No</p>
<p>i. In case of a new entrant, the tenderer shall submit the a copy of the educational/regular purchase order issued by any DISCOs along with its completion and performance certificate of supplied material in the light of specification/instructions/guidelines issued by the Chief Engineer (D&S) NTDC Lahore letter No.3187-97 dated: 20.10.2015, otherwise firm shall be treated as non-responsive.</p>	<p>No</p>
<p>ii. These meters must be compatible (communication as well as software) and operable with the existing UDIL(Latest) compliant MDC server installed and operated at WAPDA House Lahore under PITC.</p>	<p>No</p>
<p>iii. If the Contractor/Manufacturer does not possess the valid prototype approval of the meter for last three years then he shall have to obtain the same from the office of Chief Engineer (Design & Standard) NTDC / PEPCO/ PPMC before start of mass production.</p>	<p>Yes</p>
<p>iv. After signing of the contract the successful manufacturers shall have to get the prototype approval from Chief Engineer (Design & Standards) NTDC as per relevant Specification before the start of mass production without affecting the delivery schedule, if already valid prototype approval does not exist.</p>	<p>No</p>
<p>v. If the prototype sample fails, the material shall be improved and re-offered for prototype testing to Chief Engineer (S&S) NTDC. The time taken for improvement in sample and re-submission of drawings will not entitle the manufacturer to claim extension in delivery period on this account.</p>	<p>No</p>
<p>vi. Any changes suggested by the Chief Engineer (Design & Standard) NTDC during prototype testing for compliance of Specification and Purchase Order shall have to be incorporated without any extra price claim</p>	<p>No</p>
<p>vii. The testing charges of the material, if any, shall be borne by the tenderer</p>	<p>No</p>

viii. The verification of local vendors for the manufacturing of locally manufactured components shall be done as per Clause No.17 of Wapda / PEPCO Specification DDS-65:2003 (amendment No.6, dated. 05.12.2009).	No
ix. The tenderer shall provide free of charge all such assistance, instruments, machines, labour & material as are normally required for carrying out such tests.	No
x. The successful bidder will provide MDC software with the meters	No
Delay in offering the prototype beyond 30-days will be considered as breach of contract agreement and liquidated charges @ 0.0667% percent for each and every day, of delay in submission of prototype sample, beyond the allowable 30 days, shall be recoverable from the contractor. These liquidated charges are in addition to the liquidated damages stated in preamble to general conditions of contract clause 26.1. All expenses of testing charges will have to be borne by the manufacturer/supplier.	No
In case of failure of 1st prototype Sample, the material shall be improved and second samples must be re-offered for prototype testing to Chief Engineer (S&S) NTDC by the Bidder, within 10-days and get prototype approval within 20-days after its submission. The time taken for improvement in samples and resubmission of drawings will notentitle the manufacturer to claim extension in delivery period on this account. If the Prototype fails second time, firm will be considered Non-Responsive	No
The bidder shall quote on FCS basis rate for the supply of stores applicable to both delivery locations, i.e., Regional Store Rohri and Regional Store Larkana. The total quantity shall be delivered as follows: 80% to Regional Store Rohri, 20% to Regional Store Larkana No separate or conditional rates for individual locations shall be acceptable.	No
The quoted FCS price in Pak Rupees shall be firm and final and not subject to escalation for any reason what-so ever. The Tenderer shall be entirely responsible for all duties and Taxes and other such levies on finished goods/components and raw material of the Contracted goods until delivery to the consignee(s). The Sales Tax be quote separately.	No
Conditional Bids / Rates will not be entertained / accepted.	No

Bid submission / Tender opening date & timings shall be observed strictly	No
You have to submit the requisite Certificate dully filled in, regarding the Declaration of Fees, Commission & Brokerage etc paid by you about Goods, Services & Works.	Yes
Cartel / pool rates are strictly prohibited. The firms found involved in collusive practice shall be dealt under PPRA Rules / PEPCO instructions.	No
In case of holiday announced by the Govt. of Pakistan, strike in SEPCO 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.	No
xi) The bidder's Beneficiary Declaration certificate mentioning the names of beneficiary accounts as per PPRA SRO 592 and in case, such owners / Beneficiary have other firms with different names registered as General Order Suppliers with DISCO/ NTDC/WAPDA who are consistently non-performing (non-delivery of material, non-submission of performance Guarantees, Bid Guarantees, Advance Payments, non-execution of contract agreements etc.)	No
In Continuition of Above Clause (xi) then the bidder's having same beneficiary / owners firm's shall be declared as non-responsive. Copy of form of Beneficiary Declaration certificate is attached.	No
Marking of page number of the bid along with all enclosures must be ensured in sequence to ascertain the number of documents attached with the bidding documents, as per C.E (TS) Design memo No. 5686-91 dt.16.08.2024.	No

Evaluation Criteria

Eligible bidder(s) with substantially responsive bid(s) offering **Least Cost Based Selection (LCBS)** shall be consider for the award of contract(s).

Least Cost Based Selection (LCBS)

Items/Lots

Items Without Lots :

Item	UNSPSC	Delivery Schedule	Quantity	Bid Security	Sample Quantity	Manufacturer / Dealer Authorization	Warranty
Static Single Phase 2-Wire AMI Smart Energy Meter, 240V, 10/40A, 50Hz, Accuracy Class 1.0 (kWh), with built-in programmable features, remote disconnect/reconnect relay, and PTA compliant 4G communication module including MDC driver/software.	Remote automatic meter reading system	<p>Address: ON FCS Basis at Regional Store Rohri & Larkana</p> <ul style="list-style-type: none"> • 50% quantity shall be supplied within 90 days or earlier & Remaining 50% quantity shall be delivered from 91st to 120th days or earlier from the date of issue of purchase order. <p>Schedule: 120 Days Quantity: 30000</p>	30000	10800000	1	Manufacturer Authorization form	24 Months

Related Services of Goods:

No

Items/Lot Specification

Items Without Lots :

Item: Static Single Phase 2-Wire AMI Smart Energy Meter, 240V, 10/40A, 50Hz, Accuracy Class 1.0 (kWh), with built-in programmable features, remote disconnect/reconnect relay, and PTA compliant 4G communication module including MDC driver/software.

UNSPSC: Remote automatic meter reading system

Specifications / Requirements:

(As per Specification of WAPDA/NTDC/PEPCO/PITC) (Amended to date) i) DDS-65:2003 (Amended to date) ii) DDS-98:2011 (Amended to date) iii) DDS-110:2012 (Amended to date) iv) IEC-62055-31 (For Relay) UDIL (Latest Version) The backup battery must have minimum capacity of 1200 mAh with support of super capacitor. The MDC (driver) software must be certified on latest release of PITC-UDIL Version as at the time of issuance of LOI.

Price Schedule

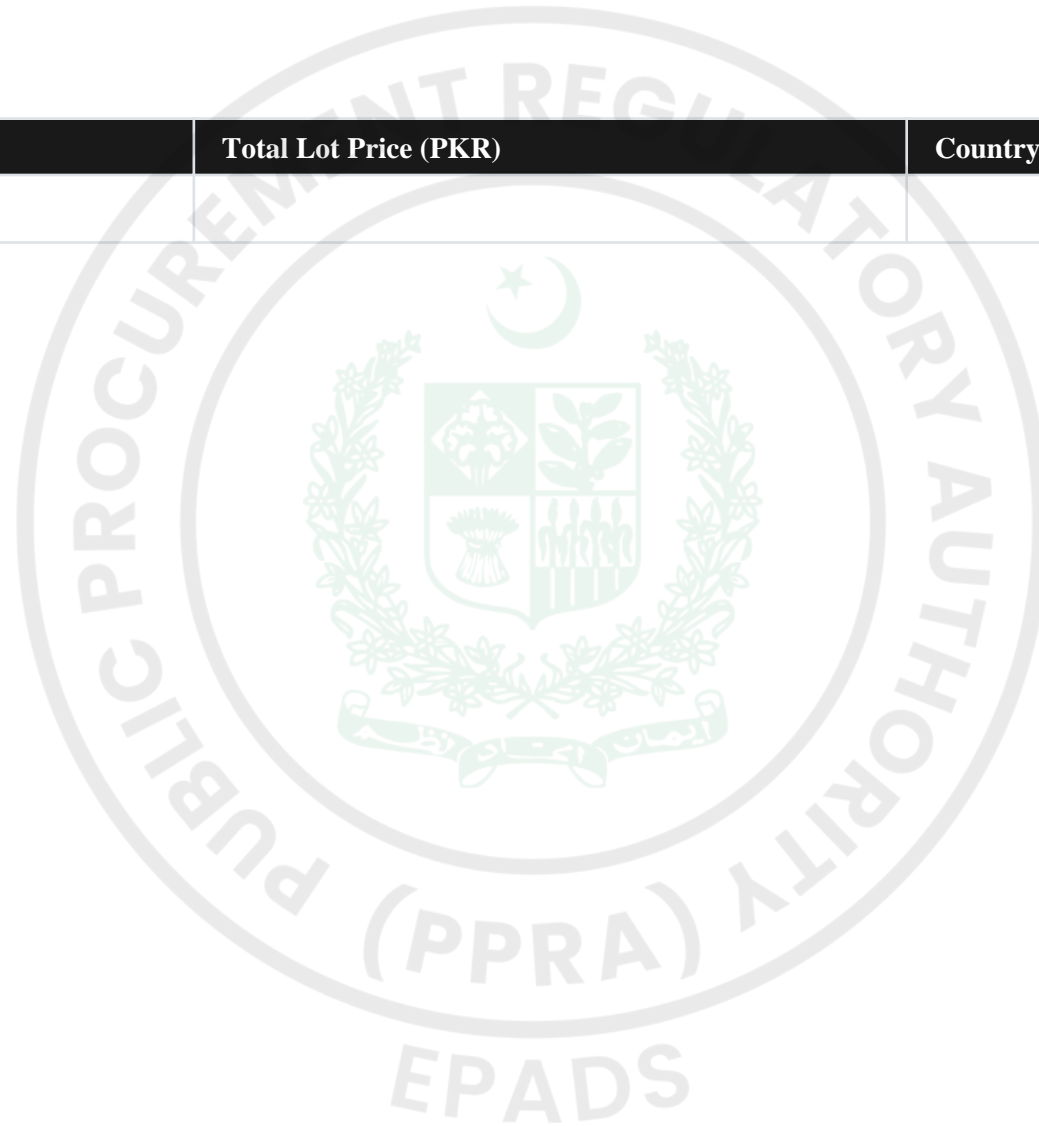
For Individual Items

#	Item Title	Quantity	Unit Price (PKR)	Total Price (PKR)	Delivery Location	Delivery Period / Year	Country of Origin
1							

#	Item Title	Quantity	Unit Price (PKR)	Total Price (PKR)	Delivery Location	Delivery Period / Year	Country of Origin
2							

For Lots

#	Lot Title	Total Lot Price (PKR)	Country of Origin
1	[Lot 1 Title]		







General Conditions of Contract

A. General

1. Definitions

1.1 Unless the context otherwise requires, the following terms whenever used in this Contract shall have the same meaning and shall be interpreted as indicated

1. "Applicable Law" means the laws and any other instruments having the force of law in the Government's Country, or in such other country as may be specified in the Special Conditions of the Contract (SC), as they may be issued and in force from time to time;
2. "Procuring Agency" means:-
 - 2.1. any Ministry, Division, Department or any Office of the Government;
 - 2.2. any authority, corporation, body or organization established by or under a Law or which is owned or controlled by the Government;
3. "The Contract" means an agreement enforceable by law;
4. "The Contract Price" means the price payable to the Bidder under the Contract for the full and proper performance of its contractual obligations;
5. "Ancillary Services" means those services ancillary to the provision of Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Bidder covered under the Contract;
6. "GCC" means the General Conditions of Contract contained in this section;
7. "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented;
8. "Day" means calendar day unless indicated otherwise.
9. "Effective Date" means the date on which this Contract comes into force and effect.
10. "The Bidder" means the individual or corporate body whose Bids to provide the Goods has been accepted by the Procuring Agency;
11. "The Project Site," where applicable, means the place or places named in Bids Data Sheet and technical Specifications;
12. "Government" means the Government of Pakistan;
13. "Subcontractor" means any entity to which the Bidder subcontracts any part of the Goods.
14. "Service" means any object of procurement other than goods or works;
15. "Party" means the Procuring Agency or the Bidder, as the case may be, and "Parties" means both of them;
16. "Foreign Currency" means any currency other than the currency of the country of the Procuring Agency;

17. "Completion Date" means the date of completion of the contract by the Bidder as certified by the Procuring Agency;

18. "In Writing" means communicated in written form with proof of receipt;

19. "Local Currency" means the currency of Pakistan;

2. Application and Interpretation

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.

2.2 In interpreting these Conditions of Contract headings and marginal notes are used for convenience only and shall not affect their interpretations unless specifically stated; references to singular include the plural and vice versa; and masculine include the feminine. Words have their ordinary meaning under the language of the Contract unless specifically defined.

3. Applicable Law

3.1 The contract shall be governed and interpreted in accordance with the laws of Pakistan, unless otherwise specified in SCC.

4. Governing Language

4.1 The Contract as well as all correspondence and documents relating to the Contract exchanged between the Bidder and the Procuring Agency, shall be written in the **English language** unless otherwise stated in the SCC. Supporting documents and printed literature that are part of the Contract may be in another language provided these are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, this translation shall govern.

5. Notices

5.1 Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address specified in the SCC.

6. Delivery/Location

6.1 The Goods shall be delivered to such locations as the Procuring Agency may approve and as specified in SCC.

7. Authorized Representatives / Authority of Member in charge

7.1 Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Procuring Agency or the Bidder may be taken or executed by the officials specified in the SCC.

B. Commencement, Completion, Modification, and Termination of Contract

8. Effectiveness of Contract

8.1 This Contract shall come into effect on the date the Contract is signed by both parties and such other later date as may be stated in the SCC.

9. Commencement of Services

9.1 The Bidder shall confirm availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the SCC.

10. Program

10.1 Before commencement of the Services, the Bidder shall submit to the Procuring Agency for approval a Program showing the general methods, arrangements, order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.

11. Starting Date/Expiration Date

11.1 The Bidder shall start carrying out the Services Five (05) days after the date the Contract becomes effective, or at such other date as may be specified in the SCC.

11.2 Unless terminated earlier pursuant to Clause **GCC 15** hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SCC.

12. Entire Agreement

12.1 This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

13. Modification

13.1 Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any Bids for modification or variation made by the other Party.

13.2 In cases of any modifications or variations, the prior written consent of the Procuring Agency is required.

14. Force Majeure

14.1 Definition

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

14.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

14.3 Extension of Time

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result

of Force Majeure.

14.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Bidder shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

15. Termination

15.1 By the Procuring Agency

The Procuring Agency may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (e) of this Clause. In such an occurrence the Procuring Agency shall give at least thirty (30) calendar days' written notice of termination to the Bidder in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e);

1. If the Bidder fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension;
2. If the Bidder becomes (or, if the Bidder consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
3. If the Bidder fails to comply with any final decision reached as a result of arbitration proceedings;
4. If, as the result of Force Majeure, the Bidder is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;
5. If the Procuring Agency, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;

15.2 By the Bidder

The Bidder may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Procuring Agency, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

1. If the Procuring Agency fails to pay any money due to the Bidder pursuant to this Contract and not subject to dispute within forty-five (45) calendar days after receiving written notice from the Bidder that such payment is overdue.
2. If, as the result of Force Majeure, the Bidder is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.
3. If the Procuring Agency fails to comply with any final decision reached as a result of arbitration.
4. If the Procuring Agency is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Bidder may have subsequently approved in writing) following the receipt by the Procuring Agency of the Bidder's notice specifying such breach.

C. Obligations of the Bidder

16. General

16.1 Standard of Performance

1. The Bidder shall deliver the product and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Bidder shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Procuring Agency, and shall at all times support and safeguard the Procuring Agency's legitimate interests in any dealings with the third parties.

16.2 Law Applicable to Goods

The Bidder shall deliver the goods in accordance with the Contract and in accordance with the Law of Pakistan and shall take all practicable steps to ensure that any of its Experts and Sub-Bidders, comply with the Applicable Law.

17. Conflict of Interests

17.1 Bidder Not to Benefit from Commissions and Discounts.

The remuneration of the Bidder shall constitute the Bidder's sole remuneration in connection with this Contract or the Services, and the Bidder shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Bidder shall use their best efforts to ensure that the Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.

17.2 Bidder and Affiliates Not to be Otherwise Interested in Project

The Bidder agree that, during the term of this Contract and after its termination, the Bidder and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing Goods for any project resulting from or closely related to the Services.

17.3 Prohibition of Conflicting Activities

Neither the Bidder nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

1. during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract;
2. during the term of this Contract, neither the Bidder nor their Subcontractors shall hire public employees in active duty or on any type of leave, to perform any activity under this Contract;

18. Confidentiality

18.1 Except with the prior written consent of the Procuring Agency, the Bidder and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the contract.

19. Insurance to be Taken Out by the Bidder

19.1 The Bidder(a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors', as the case may be) own cost but on terms and conditions approved by the Procuring Agency, insurance against the risks, loss or damage, and for the coverage, as shall be specified in the SCC; and (b) at the Procuring Agency's request, shall provide evidence to the Procuring Agency showing that such insurance has been taken out and maintained and that the current premiums have been paid.

20. Bidder's Actions Requiring Procuring Agency's Prior Approval

20.1 The Bidder shall obtain the Procuring Agency's prior approval in writing before taking any of the following actions:

- (a) appointing such members of the Personnel not provided by the Bidder;
- (b) changing the Program of activities; and
- (c) any other action that may be specified in the SCC.

21. Reporting Obligations

21.1 The Bidder shall submit to the Procuring Agency the reports and documents in the numbers, and within the periods as prescribed by the Procuring Agency.

22. Liquidated Damages

22.1 If the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring Agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the performance security (or guarantee) specified in SCC. Once the said maximum is reached, the Procuring Agency may consider termination of the Contract pursuant to **GCC Clause 15**.

22.2 Correction for Over-payment

If the Intended Completion Date is extended after liquidated damages have been paid, the Procuring Agency shall correct any overpayment of liquidated damages by the Bidder by adjusting the next payment certificate. The Bidder shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in SCC.

22.3 Lack of performance penalty

If the Bidder has not corrected a Defect within the time specified in the Procuring Agency's notice, a penalty for Lack of performance will be paid by the Bidder. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as specified in the SCC.

23. Performance Guarantee

23.1 Within Seven (07) days from the issuance of acceptance letter from the Procuring Agency, the successful Bidder shall furnish the Performance Guarantee in shape of ----- at the discretion of the PA in the amount **specified in SCC**. In case the amount of Bids security is equal or greater than

23.2 The proceeds of the Performance Guarantee shall be payable to the Procuring agency as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

23.3 The Performance Guarantee shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Procuring agency and shall be in the acceptable form as specified in SCC.

23.4 The Performance Guarantee will be discharged by the Procuring agency and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless otherwise **specified in SCC**.

24. Fraud and Corruption

24.1 The Procuring Agency requires the Supplier to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the Bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

25. Sustainable Procurement

25.1 The Bidder shall conform to the sustainable procurement contractual provisions, if and as specified in the SCC.

D. Bidder's Personnel

26. Description of Personnel

26.1 The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Bidder's Key Personnel. The Key Personnel listed by title as well as by name are hereby approved by the Procuring Agency.

27. Removal and/or Replacement of Personnel

27.1 Except as the Procuring Agency may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Bidder, it becomes necessary to replace any of the Key Personnel, the Bidder shall provide as a replacement a person of equivalent or better qualifications.

27.2 If the Procuring Agency finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Bidder shall, at the Procuring Agency's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Procuring Agency.

27.3 The Bidder shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

E. Obligations of the Procuring Agency

28. Assistance and Exemptions

28.1 The Procuring Agency shall use its best efforts to ensure that the Government shall provide the Bidder such assistance and exemptions as specified in the SCC.

29. Change in the Applicable Law

29.1 If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the related Services rendered by the Bidder, then the remuneration and reimbursable expenses otherwise payable to the Bidder under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred in the SCC.

30. Services and Facilities

30.1 The Procuring Agency shall make available to the Bidder and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described , at the times and in the manner specified in the SCC or terms of reference.

30.2 In case that such services, facilities and property shall not be made available to the Bidder, the Parties shall agree on (i) any time extension that it may be appropriate to grant to the Bidder for the performance of the Services, (ii) the manner in which the Bidder shall procure any such services, facilities and property from other sources, and (iii) the additional payments, if any, to be made to the Bidder as a result thereof.

F. Payments to the Bidder

31. Contract Price

31.1 The price payable shall be in Pakistani Rupees unless otherwise specified in the SCC. Prices charged by the Supplier for Goods delivered under the Contract shall not vary from the prices quoted by the Supplier in its Bid.

32. Terms and Conditions of Payment

32.1 Payments will be made to the Bidder according to the payment schedule stated in the SCC and as per actual invoice submitted by the Bidder.

32.2 Unless otherwise stated in the SCC, the advance payment shall be made against the provision by the Bidder of a bank guarantee for the same amount, and shall be valid for the period stated in the SCC. Any other payment shall be made after the conditions listed in the SCC for such payment have been met, and the Bidder have submitted an invoice to the Procuring Agency specifying the amount due.

33. Currency of Payment

33.1 Any payment under this Contract shall be made in the currency(ies) specified in the SCC.

G. Quality Control

34. Identifying Defects

34.1 The principle and modalities of Inspection of the Goods by the Procuring Agency shall be as indicated in the SCC. The Procuring Agency shall check the Bidder's performance and notify him of any Defects that are found. Such checking shall not affect the Bidder's responsibilities. The Procuring Agency may instruct the Bidder to search for a Defect and to uncover and test any service that the Procuring Agency considers may have a Defect. Defect Liability Period is as defined in the SCC.

35. Correction of Defects, and

Lack of Performance Penalty

35.1 The Procuring Agency shall give notice to the Bidder of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.

35.2 Every time notice a Defect is given, the Bidder shall correct the notified Defect within the length of time specified by the Procuring Agency's notice.

35.3 If the Bidder has not corrected a Defect within the time specified in the Procuring Agency's notice, the Procuring Agency will assess the cost of having the Defect corrected, the Bidder will pay this amount, and a Penalty for Lack of Performance.

36. Taxes and Duties

36.1 A Supplier shall be entirely responsible for all taxes, duties, fees, etc., incurred until delivery of the contracted Goods to the Procuring Agency.

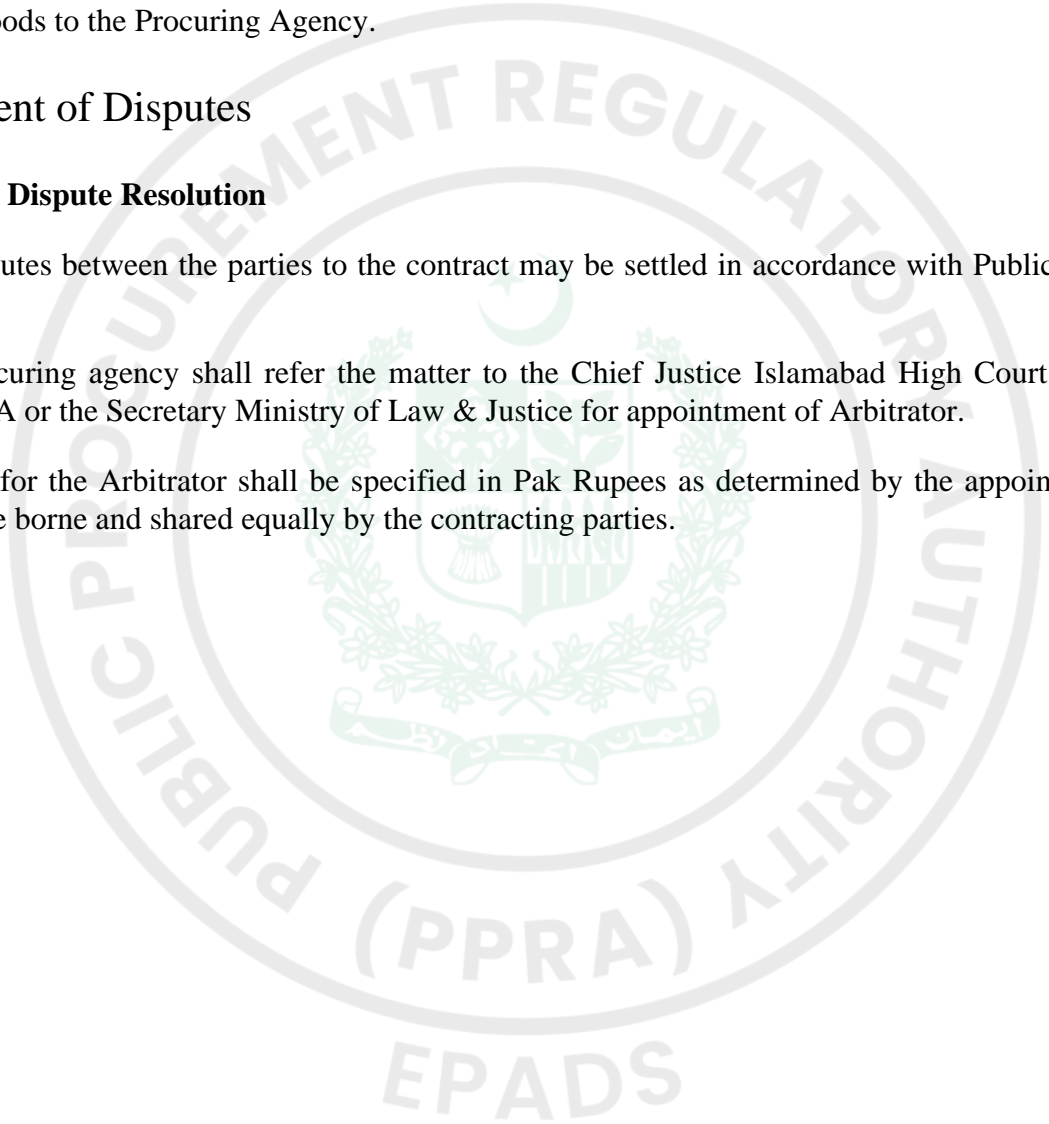
H. Settlement of Disputes

37. Alternate Dispute Resolution

37.1 The disputes between the parties to the contract may be settled in accordance with Public Procurement Rules, 2004.

37.2 The procuring agency shall refer the matter to the Chief Justice Islamabad High Court or Managing Director PPRA or the Secretary Ministry of Law & Justice for appointment of Arbitrator.

37.3 The fee for the Arbitrator shall be specified in Pak Rupees as determined by the appointing authority which shall be borne and shared equally by the contracting parties.





Special Conditions of Contract

SECTION VIII. SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

Number of GC Clause

Amendments of, and Supplements to, Clauses in the General Conditions of Contract

Number of GC Clause 1

Definitions

The Procuring Agency is: Sukkur Electric Power Company (SEPCO) (MM Directorate), Manager Material Management Office Of Manager Material Management, Old thermal power Station, SEPCO HQ ,Sukkur

The Supplier is:

The title of the subject procurement is: Tender No. 1383/26 PROCUREMENT OF SINGLE PHASE AMI SMART ENERGY METERS

Number of GC Clause 3

Applicable/Governing Law:

The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan

Number of GC Clause 4

Language:

The language of the Contract, all correspondence and communications to be given, and all other documentation to be prepared and supplied under the Contract shall be in **English**.

Number of GC Clause 5

Notices:

The addresses for the notices are:

Procuring Agency:

Sukkur Electric Power Company (SEPCO) (MM Directorate), Manager Material Management Office Of Manager Material Management, Old thermal power Station, SEPCO HQ ,Sukkur
+92-306-377-5784
arif.bhutto@sepco.com.pk

Contractor/ Bidder:

[Name, address and telephone number].

The Contractor/ Bidder's Representative(s)

[Name, address, telephone number and e-mail address]

Number of GC Clause 7.1

The Authorized Representatives are:

For the Procuring Agency:

Sukkur Electric Power Company (SEPCO) (MM Directorate), Manager Material Management
Office Of Manager Material Management, Old thermal power Station, SEPCO HQ ,Sukkur
+92-306-377-5784
arif.bhutto@sepco.com.pk

For the Bidder:

Name:

Designation:

Address:

Number of GC Clause 8

Effectiveness of the contract

Number of GC Clause 9

Commencement of Contract:

Number of GC Clause 11.2

Expiration of Contract:

Number of GC Clause 15

Termination

In the event of termination of the contract due to any reason as already defined in the General Conditions of Contract, the Bidder shall be responsible for providing to the Authority the Goods till the time of alternate arrangements.

Number of GC Clause 17

Conflict of Interest:

The Procuring Agency reserves the right to determine on a case-by-case basis whether the Bidder should be disqualified from providing goods or services due to a conflict of a nature described in Clause GCC 17.

Number of GC Clause 22

Liquidated Damages

If the Bidder fails to provide services as required under the contract or in case of any data loss/data breach or any incident compromising the data security or other such failures related to any services, the Bidder shall pay to the Procuring Agency as Liquidated Damages at a rate of **0.06%** to **10.00%** of the Contract value, in accordance with the extent of performance failure & the cost of investigating such incidents as judged by the

Authority.

Number of GC Clause 23

Performance Guarantee:

The amount of performance guarantee shall be **0%** of the contract price in acceptable form of **Nil**

Number of GC Clause 32

Payment terms:

Payment will be made to the Bidder against the procured Goods and services according to the actual invoice or running bills submitted by the Bidder against the services provided within the time given in the conditions of the contract.

Number of GC Clause 33

Currency of Payment:

All the payment to be released to the contractor/Bidder shall be in Pakistani Rupees.

Number of GC Clause 34

Identifying Defects:

The Authority reserves the right at any time to inspect the premises of the provider to inspect the goods and monitor the goods being provided.

Inspections & Tests Requirements

Quality and quantity inspection shall be carried out prior to shipment of Goods by the manufacturer(s) at the supplier's own expense and responsibility in terms of the items specified in the specifications. The supplier shall submit the inspection certificate issued by himself which should be attached with the certificate(s) of the manufacturer(s) to the Procuring Agency in order to ensure that the goods are manufactured in compliance with the contract.

The joint inspection shall be carried out at the manufacturer's/supplier's premises by the Chief Engineering (MI) PPMC Lahore or his authorized representative and SEPCO representative. Notice in writing shall have to be given to the office of Chief Engineering PPMC and MMM SEPCO simultaneously by the manufacturer/supplier when the store against the order is ready for inspection. The inspection call shall be effective when delivered to SEPCO or CE (MI) PPMC Lahore, whichever is later.

The manufacturer/Supplier shall have to deposit Inspection Fee @ 0.5% of the cost of material on order while offering material for inspection in the Account of Chief Engineer (MI) PPMC. All expenses of Inspector(s) of SEPCO shall be borne by the Tenderer including Boarding/ Lodging, Daily Allowance etc.

Stage inspection may be carried out, if necessary. All reasonable facilities as provided in the specification or followed by the industry or trade, in general, shall have to be accorded to the inspecting officers at your expense for carrying out the inspection.

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.

The decision of the Inspecting Officer shall be binding on the supplier. If the stores are rejected as aforesaid, then without prejudice to the right of the Purchaser, the supplier may submit stores in replacement of those rejected but resubmission will not mean the extension of the delivery period.

On final rejection, the purchaser shall have the following rights: a. To purchase the rejected goods at the supplier's cost and expense. b. To terminate the contract/PO and recover from the supplier the loss the Company, thereby incurs.

SEPCO reserves the right to re-inspect, re-test (at its own expense) and, where necessary, reject the Goods after the arrival at the final destination. This shall in no way be limited to or eased because of the Goods having previously been inspected, tested and passed by SEPCO or its representative prior to the Goods' shipment. The decision of SEPCO based on the reports of re-inspection and/or re-testing shall be binding on the manufacturer/supplier.

VISUAL INSPECTION: Visual Inspection shall be carried out by SEPCO Material Inspection Committee and will highlight and communicate any defect found at time of visual inspection to this office as well as to the supplier. The concerned Deputy Manager Regional Store SEPCO shall be issued GRN after issuance of Verification Certificate in accordance with Material Quality and as per Specification / Standard by SEPCO Material Inspection Committee.

g) The LOI will be issued to most advantageous bidder. The successful bidder has to submit PITC UDIL compliance requirements for Tier-1 Certification to PITC within 20 days of issuance of LOI and obtain UDIL compliance Tier-1 certificate from PITC within 30 days (from the submission of compliance requirements for Tier-I (extendible if both parties agreed), on latest PITC version applicable at the time of issuance of LOI

Failure to submit the requirements to PITC within stipulated time frame shall make the most advantageous bidder non-responsive and steps for forfeiture of bid security shall be taken by SEPCO. The performance guarantee shall be submitted within 07 days of issuance of UDIL certificate from PITC for Tier-1, then P.O will be issued.

a) The UDIL Compliance testing will comprise of two phases / Tiers as under: a) UDIL Compliance Testing Tier-1 Certificate: In this phase MDCs will be tested for UDIL Compliance as per request proforma submitted by Vendors. After successful completion of which UDIL Compliance testing Tier-1 certificate will be issued.

b) UDIL Performance Testing Tier-2 Certificate: Tier-2 Certificate will be issued by committee headed by Regional Manager (M&T) whereas concerned S.E (Opr) & Incharge AMI Cell will be Members of the Committee, after consultation with PITC once at least 500 Meters are installed in the field (out of total) and their two successful billing cycles have been performed by the SEPCO using the AMI Solution.

h) If the bidder does not possess the prototype approval for the offered material according to relevant DDS and IEC standards (all amended to date), if applicable under WAPDA approved specification, the bidder shall have to obtain the prototype approval from the office of Chief Engineer (S&S), Lahore

before start of mass production. Drawing and prototype samples for prototype testing shall be submitted to Chief Engineer (S&S) NTDC Lahore within 30 days from the date of issuance of purchase order. Delay in offering the prototype beyond 30 days will be considered as delay in delivery and same late delivery charges will be applicable as for delay in supply of goods.

i) All expenses of testing charges will have to be borne by the manufacturer. Any change suggested during prototype testing for compliance of specification shall have to be incorporated without any extra price or claim. If the prototype sample fails, the material shall be improved and re-offered for prototype testing to Chief Engineer (S&S) NTDC, Lahore.

The time taken for improvement in samples and resubmission of drawings will not entitle the manufacturer to claim extension in delivery period on this account. If prototype fails second time, the firm will be considered Non-Responsive and Performance Guarantee will be forfeited in favour of SEPCO.

Delivery & Documents

Copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;

Original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;

Copies of the packing list identifying contents of each package;

Insurance Certificate;

Manufacturer's or Supplier's Valid Warranty Certificate;

Inspection Certificate issued by the Nominated Inspection Agency (if any), and the Supplier's Factory Inspection Report;

Certificate of Origin.

The above documents would be required even if the equipment has already been imported and is available with the supplier ex-stock

Number of GC Clause 37

Following is the guidance for Dispute Resolution

1. If any dispute of any kind whatsoever shall arise between the Authority and the Bidder in connection with or arising out of the Contract, including without prejudice to the generality of foregoing, any question regarding its existence, validity, termination and the execution of the Contract – whether during developing phase or after their completion and whether before or after the termination, abandonment or breach of the Contract – the parties shall seek to resolve any such dispute or difference by mutual diligent negotiations in good faith within 14 (fourteen) days following a notice sent by one Party to the other Party in this regard.
2. At future of negotiation the dispute shall be resolved through mediation and mediator shall be appointed with the mutual consent of the both parties.
3. At the event of failure of mediation to resolve the dispute relating to this contract such dispute shall finally be resolved through binding Arbitration by sole arbitrator in accordance with Arbitration Act 1940. The arbitrator shall be appointed by mutual consent of the both parties. The Arbitration shall take place in Islamabad, Pakistan and proceedings will be conducted in English language.
4. The cost of the mediation and arbitration shall be shared by the parties in equal proportion however the both parties shall bear their own costs and lawyer's fees regarding their own participation in the mediation and arbitration. However, the Arbitrator may make an award of costs upon the conclusion of the arbitration making any party to the dispute liable to pay the costs of another party to the dispute.

5. Arbitration proceedings as mentioned in the above clause regarding resolution of disputes may be commenced prior to, during or after completion of the contract.

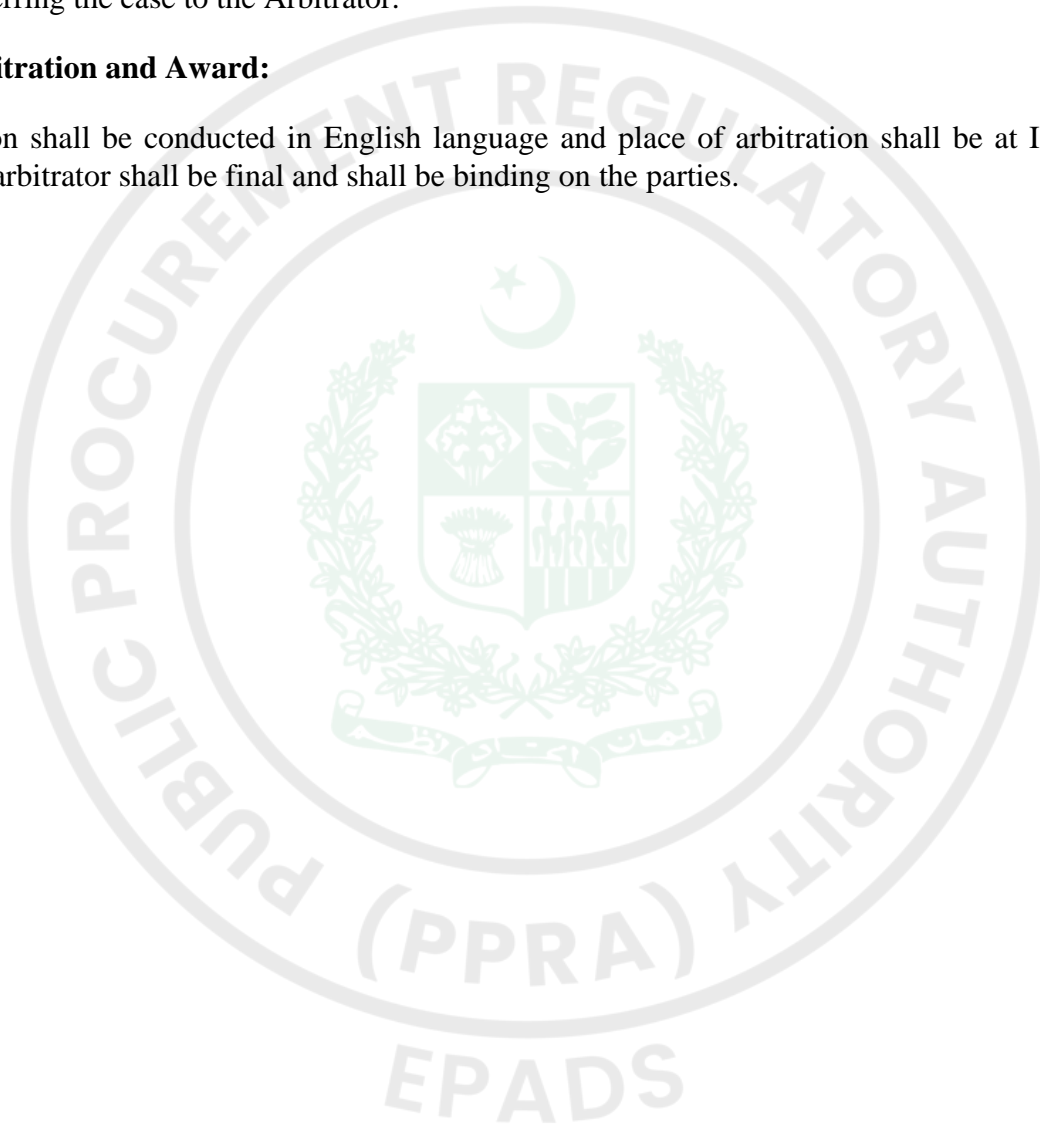
Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree that the Authority shall pay the Bidder any monies due to the Bidder.

Rules of procedure for arbitration proceedings:

Any dispute between the Authority and a Bidder who is a national of the Islamic Republic of Pakistan arising in connection with the present Contract shall be referred to adjudication or arbitration in accordance with the laws of the Islamic Republic of Pakistan including Arbitration Act 1940, however above provision shall prevail in referring the case to the Arbitrator.

Place of Arbitration and Award:

The arbitration shall be conducted in English language and place of arbitration shall be at Islamabad. The award of the arbitrator shall be final and shall be binding on the parties.





Bid Securing Declaration

Form 9: Bid Securing Declaration

Date: *[insert date (as day, month and year)]*

Bid No.: **P33704**

To: **Sukkur Electric Power Company (SEPCO) (MM Directorate), Manager Material Management Office Of Manager Material Management, Old thermal power Station, SEPCO HQ, Sukkur**

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid Securing Declaration.

We accept that we will be blacklisted and henceforth cross debarred for participating in respective category of public procurement proceedings for a period of (not more than) six months, if fail to abide with a bid securing declaration, however without indulging in corrupt and fraudulent practices, if we are in breach of our obligation(s) under the Bid conditions, because we:

1. have withdrawn or modified our Bid during the period of Bid Validity specified in the Form of Bid;
2. Disagreement to arithmetical correction made to the Bid price; or
3. having been notified of the acceptance of our Bid by the Procuring Agency during the period of Bid Validity, (i) failure to sign the contract if required by Procuring Agency to do so or (ii) fail or refuse to furnish the Performance Security or to comply with any other condition precedent to signing the contract specified in the Bidding Documents.

We understand this Bid Securing Declaration shall expire if we are not the successful

Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight (28) days after the expiration of our Bid.



Contract Form

SECTION IX: CONTRACT FORMS

THIS AGREEMENT made the _____ day of _____ 20____ between **Sukkur Electric Power Company (SEPCO) (MM Directorate), Manager Material Management Office Of Manager Material Management, Old thermal power Station, SEPCO HQ ,Sukkur**

(hereinafter called “the Procuring Agency”) of the one part and [name of Bidder] of [city and country of Bidder] (hereinafter called “the Bidder”) of the other part:

WHEREAS the Procuring Agency invited Bids for provision of goods, viz., **Tender No. 1383/26 PROCUREMENT OF SINGLE PHASE AMI SMART ENERGY METERS (P33704)** and has accepted a Bids by the Bidder for the provision of Goods in the sum of [contract price in words and figures] (hereinafter called “the Contract Price”).

NOW THIS CONTRACT WITNESSETH AS FOLLOWS:

1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Contract, In the event of any ambiguity or conflict between the Contract Documents listed below, the order of precedence shall be the order in which the Contract Documents are listed below:-

1. This form of Contract;
2. the Form of Bids and the Price Schedule submitted by the Bidder;
3. the Schedule of Requirements;
4. the Technical Specifications;
5. the Special Conditions of Contract;
6. the General Conditions of the Contract;
7. the Procuring Agency’s Letter of Acceptance; and
8. [add here: any other documents]

3. In consideration of the payments to be made by the Procuring Agency to the Bidder as hereinafter mentioned, the Bidder hereby covenants with the Procuring Agency to provide the Goods related services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Procuring Agency hereby covenants to pay the Bidder in consideration of the provision of Goods and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Contract to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the Procuring Agency)

Witness to the signatures of the Procuring Agency:

.....

Signed, sealed, delivered by _____ the _____ (for the Procuring Agency)

Witness to the signatures of the Bidder:





Integrity Pact

Integrity Pact

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS.10.00 MILLION OR MORE

Contract Number: Contract Value: Contract Title:

Dated:

[Name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing [Name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fee 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 affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultations fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[Name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representative or warranty.

[Name of Supplier] accepts full responsibility and strict liability for making and false declaration, not making full disclosure, misrepresenting fact or taking any action likely to defeat the purpose of this 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 right 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, [Name of Supplier] 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 times the sum of any commission, gratification, bribe, finder's fee or kickback given by [Name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.



Performance Guarantee Form

Performance Guarantee Form

To: **Sukkur Electric Power Company (SEPCO) (MM Directorate), Manager Material Management Office Of Manager Material Management, Old thermal power Station, SEPCO HQ ,Sukkur**

WHEREAS *[name of Bidder]* (hereinafter called “the Bidder”) has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated *[insert date]* for provision of Goods (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Bidder shall furnish you with a Bank Guarantee by a reputable bank for the sum specified therein as security for compliance with the Bidder’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Bidders guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Bidder, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the Bidder to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the: *[insert date]*

Signature and seal of the Guarantors

[name of bank or financial institution]

[address]

[date]



Annexure

Bid Data Sheet (BDS)

Information (Read-Only)

See Form Under Additional Forms and Documents: **Bid Data Sheet (BDS)** (page number: 70)

GCC AND SCC

Information (Read-Only)

See Form Under Additional Forms and Documents: **GCC AND SCC** (page number: 77)

Price Schedule/BOQ

Financial Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Price Schedule/BOQ** (page number: 94)

Technical Specifications and Data

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Technical Specifications and Data** (page number: 95)

Standard Forms Annexures

Technical Submission (Vendor)

Document Required

See Form Under Additional Forms and Documents: **Standard Forms Annexures** (page number: 103)

AMI METER DDS 98-2011 (Amended todate)

Information (Read-Only)

See Form Under Additional Forms and Documents: **AMI METER DDS 98-2011 (Amended todate)** (page number: 118)

AMI S-PHASE DDS-65-2003 (Amended todate)

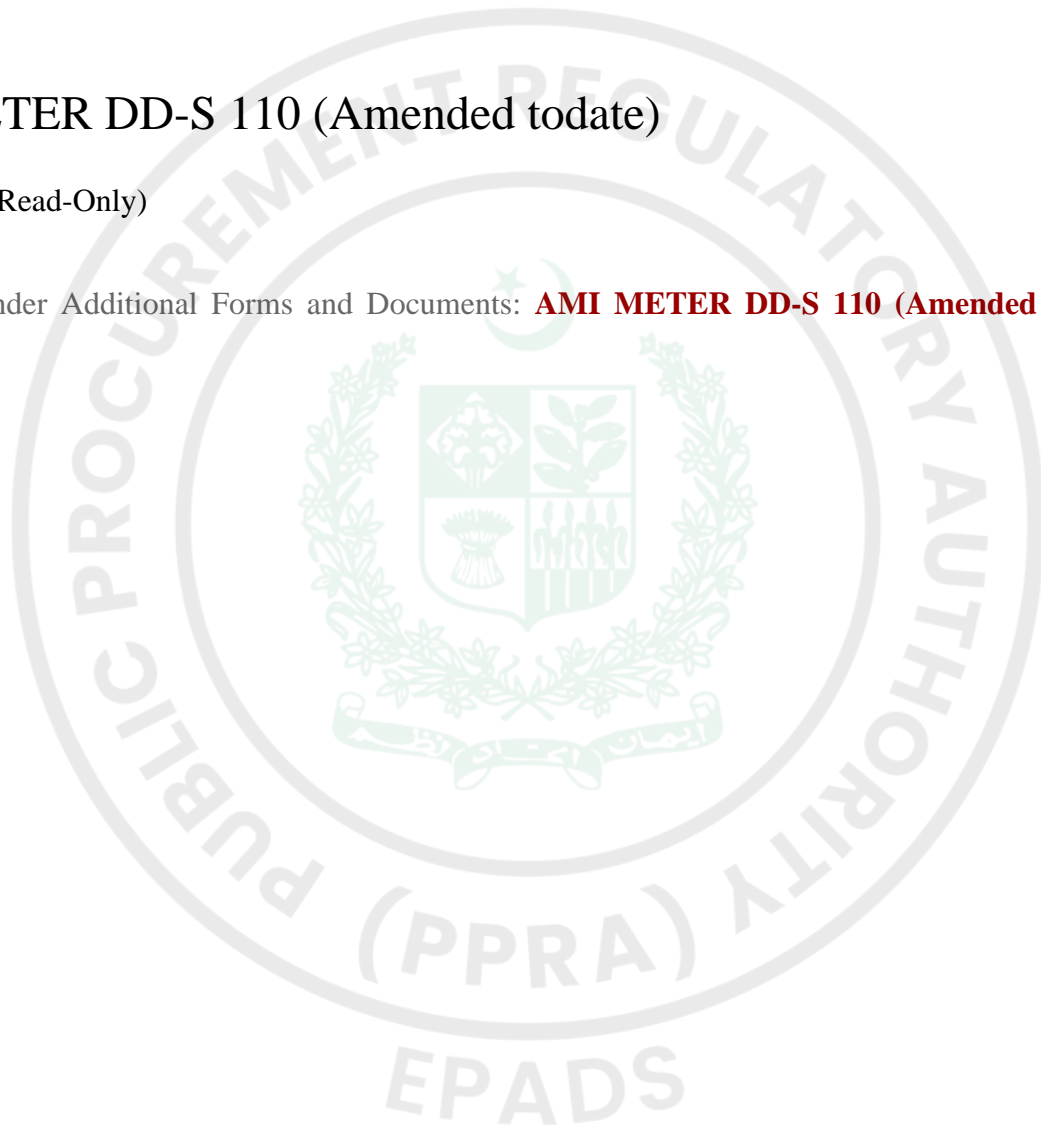
Information (Read-Only)

See Form Under Additional Forms and Documents: **AMI S-PHASE DDS-65-2003 (Amended todate)** (page number: 136)

AMI METER DD-S 110 (Amended todate)

Information (Read-Only)

See Form Under Additional Forms and Documents: **AMI METER DD-S 110 (Amended todate)** (page number: 169)





Procurement Forms

Past Experience and Completed Contracts

1. The bidder/manufacturer must have demonstrated at least Two (2) numbers of contracts successfully completed as main supplier for similar item within the last five (5) years. The total quantity of contracts (e. sum of multiple contracts) shall at least be equal to or more than the quantity of contract for which the bid is submitted. In case of JV, all JV partners shall combinely meet the said required experience.

See Form Under Additional Forms and Documents: **Past Experience and Completed Contracts** (page number: 196)

Historical Contract Non-Performance, and Pending Litigation and Litigation History

See Form Under Additional Forms and Documents: **Historical Contract Non-Performance, and Pending Litigation and Litigation History** (page number: 197)

Current Contracts and Their Progress

See Form Under Additional Forms and Documents: **Current Contracts and Their Progress** (page number: 199)

Financial Capacity and Net Worth Evaluation Form

See Form Under Additional Forms and Documents: **Financial Capacity and Net Worth Evaluation Form** (page number: 200)

Average Annual Turnover

“Providing average annual turnover for the last three (03) years:

See Form Under Additional Forms and Documents: **Average Annual Turnover** (page number: 202)





Additional Forms and Documents



SUKKUR ELECTRIC POWER COMPANAY

BIDDING DOCUMENTS

TENDER NO. 1383/26

PROCUREMENT OF SINGLE PHASE 2 WIRE, 240V, 10/40AMP, 50HZ, HAVING ACCURACY CLASS 1.0 (KWH) AND BUILT-IN PROGRAMMABLE FEATURES, AMI SMART ENERGY METERS WITH CAPABILITY OF REMOTE DISCONNECT / RECONNECT RELAY AND PTA COMPLIANT 4G COMMUNICATION MODULE (WITH BACKWARD COMPATIBILITY TO 2G) FOR REMOTE METERING SYSTEM ALONG WITH MDC SOFTWARE.

AS PER NTDC SPECIFICATION NO. DDS-65:2003, DDS-98:2011, DDS-110-2012 AND IEC 62055-31 FOR RELAY (AMENDED TODATE)

**Bidding Opening Procedure: PPRA Rule 36 (a)
SINGLE STAGE SINGLE ENVELOPE**

(For the purpose of this tender, all references to manual processes and manual submission of tender/bid should be deemed to have been replaced with the processes and procedures in pursuant to E-Pak Acquisition & Disposal System (EPADS) and defined in E-PAK Procurement Regulation, 2023.)

This completed Bidding Documents; along with Bid Security Instrument and all necessary documents for the responsiveness of the bid as specified in the bidding documents; shall be submitted / uploaded on PPRA's EPADS Portal; before close of bid submission time.

**Manager (Material Management) SEPCO
Old Thermal Power Station Old Sukkur
Phone: 071-9310798, 071-5620079
Fax: 071-9310797**

JUNE-2026

Bid Data Sheet (BDS)

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITBs). Whenever there is a conflict, the provisions herein shall prevail over those in ITBs.

BDS Clause Number	Amendments of, and Supplements to, Clauses in the Instruction to Bidders
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A. Introduction

1.	<p><u>Name of Procuring Agency:</u> Sukkur Electric Supply Company (SEPCO)</p> <p>The subject of procurement is: Procurement Of 30000 Nos. Of Single Phase 2 Wire, 240v, 10/40Amp, 50hz, Having Accuracy Class 1.0 (Kwh) And Built-In Programmable Features, AMI Smart Energy Meters With Capability Of Remote Disconnect / Reconnect Relay And PTA Compliant 4G Communication Module (With Backward Compatibility To 2G) For Remote Metering System Along With MDC Software. As Per NTDC Specification No.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Sr. No</th> <th style="width: 55%;">Description</th> <th style="width: 10%;">Unit</th> <th style="width: 10%;">Quantity</th> <th style="width: 20%;">Specifications Description</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Static Single Phase 2-Wire, GSM/GPRS 240V, 10/40Amp, 50Hz, having Accuracy Class 1.0 (kWh) and built-in programmable features, AMI Smart Energy Meters with capability of remote disconnect / reconnect relay and PTA compliant 4G communication module (with backward compatibility) with MDC driver/software.</td> <td style="text-align: center;">No</td> <td style="text-align: center;">30000</td> <td>As per WAPDA Specification DDS-65:2003, DDS-98:2011 (Amended to date), DDS-110:2012 and relevant IEC Standards. The backup battery must have minimum capacity of 1200 mAh with support of super capacitor. The MDC (driver) software must be certified on latest release of PITC-UDIL Version.</td> </tr> </tbody> </table> <p>to be supplied on FCS basis (free Consignee Stores) at Regional Stores SEPCO (ROHRI & LARKANA) The loading/unloading of the goods shall be the responsibility of the Supplier.</p> <p>Period for delivery of goods: 50% quantity shall be supplied within 90 days or earlier & Remaining 50% quantity shall be delivered from 91st to 120th days or earlier.</p>				Sr. No	Description	Unit	Quantity	Specifications Description	1	Static Single Phase 2-Wire, GSM/GPRS 240V, 10/40Amp, 50Hz, having Accuracy Class 1.0 (kWh) and built-in programmable features, AMI Smart Energy Meters with capability of remote disconnect / reconnect relay and PTA compliant 4G communication module (with backward compatibility) with MDC driver/software.	No	30000	As per WAPDA Specification DDS-65:2003, DDS-98:2011 (Amended to date), DDS-110:2012 and relevant IEC Standards. The backup battery must have minimum capacity of 1200 mAh with support of super capacitor. The MDC (driver) software must be certified on latest release of PITC-UDIL Version.
Sr. No	Description	Unit	Quantity	Specifications Description										
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2.	<p>Financial year for the operations of the Procuring Agency: 2025-26</p> <p>Name of financing institution: SEPCO</p> <p>Name and identification number of the Contract: Tender No. 1383/26</p>													
3.	Maximum number of members in the joint venture, consortium or association shall be: Three													
4.	<p>The invitation to e-bid is open to pre-qualified/registered suppliers/manufacturers in SEPCO/DISCOs/NTDC/PPMC/WAPDA in relevant category who are registered with FBR and are on Active Taxpayers List.</p> <p>The procurement process would be as per Public Procurement Rule 36 (a) Single Stage One Envelope procedure.</p>													
5.	Not Applicable													



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6.	Ineligible countries are stated in Section IV of this Bidding Documents.
7.	Not applicable

B. Bidding Documents

8.	One scanned e-bid containing all the required documents is to be submitted / uploaded on EPADS. Note: Only e-bids submitted through the EPAD System shall be accepted. However, in addition, the hard copy Original Bid Security must be submitted in the office of the Manager (Material Management) SEPCO Sukkur Before submission deadline.
9.	The clarification can be sought on the EPADS portal.
10.	Pre-Bid Meeting: “A Pre-Bid Meeting shall be held on Tuesday, June 02, 2026 at 11:30 AM at SEPCO Head Office, Admin Block, Old Thermal Power Station, Sukkur. The meeting shall be conducted physically; however, prospective bidders may also participate through online mode via Zoom. The Zoom meeting credentials/link shall be shared separately through Contact No. 0306-3775784 prior to the meeting.”

C. Preparation of Bids

11.	The Language of all correspondences and documents related to the Bid is: English
12.	One No. Sample is required.
13.	Power of Attorney Authorizing the signatory of the bidder to submit the bid on the Company's Latter Head.



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<p>14.</p>	<p>The material shall be strictly according to standard specifications (amended-to-date). For items necessitating prototype approval;</p> <ol style="list-style-type: none"> i. In case of a new entrant, the tenderer shall submit the a copy of the educational/regular purchase order issued by any DISCOs along with its completion and performance certificate of supplied material in the light of specification/instructions/guidelines issued by the Chief Engineer (D&S) NTDC Lahore letter No.3187-97 dated: 20.10.2015, otherwise firm shall be treated as non-responsive. ii. These meters must be compatible (communication as well as software) and operable with the existing UDIL compliant MDC server installed and operated at WAPDA House Lahore under PITC. iii. If the Contractor/Manufacturer does not possess the valid prototype approval of the meter for last three years then he shall have to obtain the same from the office of Chief Engineer (Design & Standard) NTDC / PEPCO/ PPMC before start of mass production. iv. After signing of the contract the successful manufacturers shall have to get the prototype approval from Chief Engineer (Design & Standards) NTDC as per relevant Specification before the start of mass production without affecting the delivery schedule, if already valid prototype approval does not exist. v. If the prototype sample fails, the material shall be improved and re-offered for prototype testing to Chief Engineer (S&S) NTDC. The time taken for improvement in sample and re-submission of drawings will not entitle the manufacturer to claim extension in delivery period on this account. vi. Any changes suggested by the Chief Engineer (Design & Standard) NTDC during prototype testing for compliance of Specification and Purchase Order shall have to be incorporated without any extra price claim. vii. The testing charges of the material, if any, shall be borne by the tenderer. viii. The verification of local vendors for the manufacturing of locally manufactured components shall be done as per Clause No.17 of Wapda / PEPCO Specification DDS-65:2003 (amendment No.6, dated. 05.12.2009). ix. The tenderer shall provide free of charge all such assistance, instruments, machines, labour & material as are normally required for carrying out such tests. x. The successful bidder will provide MDC software with the meters
<p>15.</p>	<p>Not Applicable</p>
<p>16.</p>	<p>The bidders will have to submit complete technical detail of the offered item including technical schedule and drawings.</p>
<p>17.</p>	<p>Not Applicable</p>
<p>18.</p>	<p>The bidder shall provide the following documents:</p> <ul style="list-style-type: none"> - Per year manufacturing capacity. - Supply record of last three years. - Current contract commitment - Bank statements for the last three years



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	<p>The following Clause is added:</p> <p>A. Eligible Bidders</p> <ol style="list-style-type: none"> i. A Bidder having the nationality of Pakistan. ii. Manufacturer / supplier of the offered equipment, prequalified/registered in required categories with WAPDA/GENCOS/PPMC/PITC/Any DISCO complying qualification & experience criteria as laid down in bidding document. iii. The Bidder shall be registered with Income Tax and Sales Tax Departments and shall be on Active Taxpayers List of the Federal Board of Revenue. iv. The Bidder/manufacturer shall not be, blacklisted by DISCOs/NTDC/PPMC or any other Government department. <p>B. Qualification of the Bidder</p> <p>To be qualified for award, the Bidder shall meet the experience, capability and adequacy of resources as per criteria delineated herein:</p> <p>Contractual Experience</p> <ol style="list-style-type: none"> i. The bidder/manufacturer must have demonstrated at least Two (2) numbers of contracts successfully completed as main supplier for similar item within the last five (5) years. The total quantity of contracts (i.e. sum of multiple contracts) shall at least be equal to or more than the quantity of contract for which the bid is submitted. In case of JV, all JV partners shall combinely meet the said required experience. <p>Supply Capacity</p> <p>The manufacturer shall provide the following information with the Bid to establish its capacity/capability to execute the order.</p> <ol style="list-style-type: none"> i. Manufacturing Capacity ii. Orders in hand iii. The manufacturing capacity of the Bidder should be at least equal to orders in hand and this order (if placed on it). <p>Note:- In case of new entrant following criteria shall apply:</p> <p>The tenderer should submit the copy of educational / regular purchase order issued by any DISCOs along-with its completion and performance of supplied material in the light of specification / instructions / guidelines issued by Chief Engineer (D&S) NTDC Lahore letter No.3187-97 dated. 20.10.2015, otherwise your firm will be considered for educational order / non responsive.</p>
19.	<p>The offered Bid prices shall be on FCS (Free Consignee Stores) at Regional Stores SEPCO (ROHRI & LARKANA) basis. The unloading of the goods shall be the responsibility of the Supplier.</p> <p>Not Applicable</p>
20.	<p>The quoted Prices shall be in PKR.</p>
21.	<p>Not applicable.</p>
22.	<p>The Bid Validity period shall be 120 days.</p>
	<p>The Clause of "Bids Validity Period" for ITB may be read as follows: SEPCO may request the Bidders' consent to an extension of the period of validity of their Bids, for the period not more than the period of initial bid validity.</p>
23.	<p>The amount of Bid Security shall be Rs. 10,800,000/-. The bid validity period for the aforementioned tender shall 120 days. The bank instrument shall remain valid for an additional 28 days beyond the validity date. The currency of the Bid Security shall be in PKR.</p>
24.	<p>Bid Securing Declaration is not allowed.</p>



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25.	The Bid Security shall be in PKR issued in favour of Chief Executive Officer (CEO) SEPCO and it shall be in the form as per the following: <ul style="list-style-type: none"> - A bank guarantee issued by a scheduled bank of Pakistan in the form provided in the Bidding Documents. - Call Deposit Receipt (CDR) Note: The bid security from any insurance company will not be acceptable in any case and the bid shall be liable for rejection.
26.	Alternative Bid is not allowed.
27.	Not Applicable
28.	Not Applicable. Only bids on EPADS will be accepted.
29.	Written confirmation of authorization is required on the bidder's letterhead along with the signature specimen and CNIC number. These should be scanned and attached with the bid.

D. Submission of Bids

30.	The e-bids, prepared in accordance with the instructions in the e-Bidding documents, must be submitted through EPADS v2.0 on or before Tuesday, June 09, 2026 10:30 AM. E-bids will be opened on the same day at Tuesday, June 9, 2026 12:30 PM. Manual submission of Bids shall not be entertained However, in addition, the hard copy Original Bid Security must be submitted in the office of the Manager (Material Management) SEPCO Sukkur Before submission deadline.
31.	Not Applicable. Only e-bids on EPADS will be accepted.
32.	The deadline for Bid submission on EPAD is Day: Tuesday Date: 09.06.2026 Time: 10:30 A.M

E. Opening and Evaluation of Bids

33.	The Bid opening on EPAD is Day: Tuesday Date: 09.06.2026 Time: 12:30 P.M
34.	Opening of the e-bids does not mean that all the participating bidders are responsive.
35.	Only PKR currency is acceptable.
36.	<p>Technical and Commercial Evaluation/Comparison of bids shall be carried out on FCS (Free Consignee Stores) unit price basis (at Regional Store SEPCO ROHRI & LARKANA). The unloading of the goods shall be the responsibility of the Supplier). The material shall be supplied as per legitimate delivery schedule strictly according to NTDC/PPMC approved Standard specifications (amended-to-date). Any deviations in the tender specification shall be liable for the rejection of the tender. Arithmetical errors will be rectified on the following basis:</p> <p>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 corrected. If there is a discrepancy between the words and figures the amount in words shall prevail.</p> <p>If there is a discrepancy between the total Tender price entered in Form of Tender and the total shown in the Schedule of Prices. The amount stated in the Form of Tender will be corrected by the Purchaser/Engineer in accordance with the Corrected Schedule of Prices.</p> <p>If the Tenderer does not accept the corrected amount of Tender, his Tender shall be rejected and his Tender Security forfeited.</p> <p>Tenders indicating the delivery beyond the date specified in Tender Schedule shall be declared non-responsive.</p> <p>The bidder must be registered with Income Tax and Sales Tax Department.</p>



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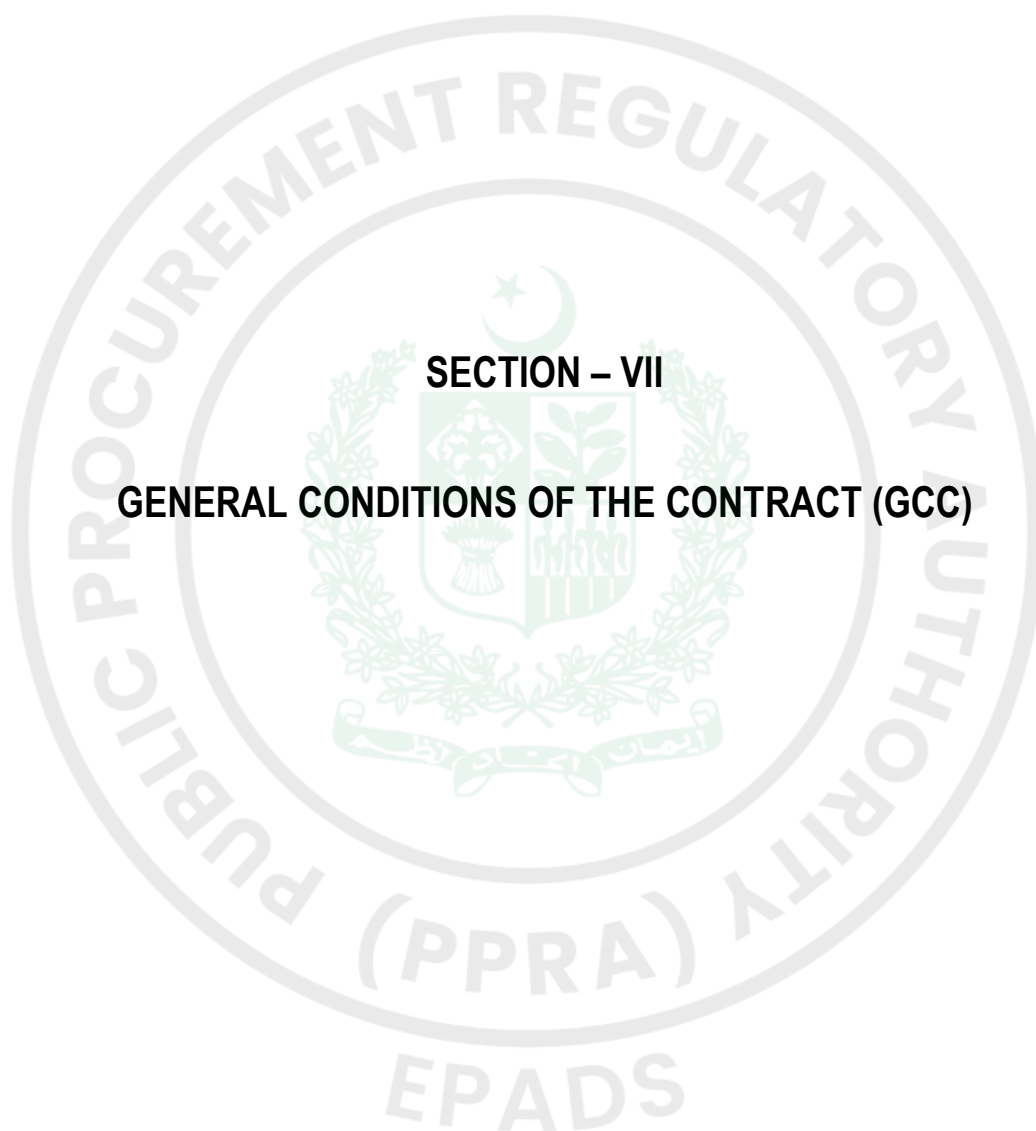
37.	The comparison shall be made on the basis of FCS (Free Consignee Stores) at Regional Store SEPCO ROHRI & LARKANA. The unloading of the goods shall be the responsibility of the Supplier.
38.	The offered bid in addition to the relevant specification shall be evaluated by the procuring agency's evaluation committee as per PP Rule-4 <i>Principles of Procurement</i> especially in terms of quality, reliability, efficiency, economy and value for money etc.
39.	Not Applicable
40.	The evaluation shall be carried out as per ITB Clauses for bid currencies, Bid Securing Declaration, Examination of Terms and Conditions; Technical Evaluation, Abnormally Low Financial Bids, Criteria of award and Negotiations of BDS, NIT and Bidding documents on the basis of the eligibility of the supplier/manufacturer and the eligibility of goods. If eligible, the bidder will be selected on the least cost basis.
41.	Not Applicable
42.	Negotiations will be undertaken as per Public Procurement Rule 40.

F. Award of Contract

43.	The Percentage for quantity increase or decrease is 15% during the currency of the contract.
44.	<p>The successful Bidder has to submit the requirement of UDIL Certificate Tier-1 to PITC within 20 days from the date of issuance of LOI and submit the Performance Guarantee 5% value of the Purchase order including 18% GST within 07 days after the issuance of UDIL Compliance Tier-1 Certificate from PITC.</p> <p>Failure of the successful Bidder to comply with the requirements of ITB relevant clauses of performance guarantee, signing of contract, Issuance of PO, submission of integrity pact shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.</p>
45.	<p>The Performance Security (or guarantee) shall be in the form of:</p> <ul style="list-style-type: none"> - A bank guarantee issued by a scheduled bank of Pakistan in the form provided in the Bidding Documents. - Call Deposit Receipt (CDR) <p>Note: The bid security from any insurance company will not be acceptable in any case and the bid shall be liable for rejection.</p>
46.	Advance Payment is not allowed.
47.	Not Applicable
48.	The Arbitrator shall be appointed by mutual consent of both parties. Arbitration shall take place at SEPCO Sukkur.
49.	<p>Following shall be added in Clause Mechanism of Blacklisting:</p> <p>The debarment / blacklisting of firms / suppliers shall be as per SEPCO debarment policy and PPRA Rule-19.</p> <p>The address of the Procuring Agency: Manager Material Management, Sukkur Electric Power Company (SEPCO) Regional Head Quarter, Old Thermal Power Station Sukkur-Pakistan Direct: +92-719310798, P.N: +92-719310796 Email: arif.bhutto@sepco.com.pk Email: managermmsepco@gmail.com</p> <p>The Address of PPRA to submit a copy of grievance: Grievance Redressal Appellate Committee, Public Procurement Regulatory Authority 1st Floor, G-5/2, Islamabad, Pakistan Tel: +92-51-9202254</p>



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SECTION – VII

GENERAL CONDITIONS OF THE CONTRACT (GCC)



BIDDER SIGN STAMP

<p>1. Definitions</p>	<p>1.1</p>	<p>The following words and expressions shall have the meanings hereby assigned to them:</p> <ul style="list-style-type: none"> a) "Authority" means Public Procurement Regulatory Authority. b) The "Arbitrator" is the person appointed with mutual consent of both the parties, to resolve contractual disputes as provided for in the General Conditions of the Contract GCC Clause 31 hereunder. c) The "Contract" means the agreement entered into between SEPCO and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein. d) The "Commencement Date" is the date when the Supplier shall commence execution of the contract as specified in the SCC. e) "Completion" means the fulfillment of the related services by the Supplier in accordance with the terms and conditions set forth in the contract. f) "Country of Origin" means the countries and territories eligible under the PPRA Rules 2004 and its corresponding Regulations as further elaborated in the SCC. g) The "Contract Price" is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract. h) "Defective Goods" are those goods which are below standards, requirements or specifications stated by the Contract. i) "Delivery" means the transfer of the goods from the supplier equipment, machinery, and /or other materials which the Supplier is required to supply to SEPCO under Contract. j) "Effective Contract date" is the date shown in the Certificate of Contract Commencement issued by SEPCO upon fulfillment of the conditions precedent stipulated in GCC Clause 3. k) "SEPCO" means the person named as SEPCO in the SCC and the legal successors in title to this person, procuring the Goods and related service, as named in SCC. l) "Related Services" means those services ancillary to the delivery of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, initial maintenance and other such obligations of the Supplier covered under the Contract. m) "GCC" means the General Conditions of Contract contained in this section. n) "Intended Delivery Date" is the date on which it is intended that the Supplier shall effect delivery as specified in the SCC. o) "SCC" means the Special Conditions of Contract. p) "Supplier" means the individual private or government entity or a combination of the above whose Bid to perform the contract has been accepted by SEPCO and is named as such in the Contract Agreement, and includes the legal successors or permitted assigns of the supplier and shall be named in the SCC. q) "Project Name" means the name of the project stated in SCC. r) "Day" means calendar day. s) "Eligible Country" means the countries and territories eligible for participation in accordance with the policies of the Federal Government. t) "End User" means the organization(s) where the goods will be used, as named in the SCC. u) "Origin" means the place where the Goods were mined, grown, or produced or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognized new produce results that is substantially different in basic characteristics or in purpose or utility from its components. v) "Force Majeure" means an unforeseeable event which is beyond reasonable control of either Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances. <p>For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as</p>
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		<p>reasonably to be considered impossible in the circumstances. and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood, epidemics, or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by Government agencies.</p> <p>w) "Specification" means the Specification of the Goods and performance of incidental services in accordance with the relevant standards included in the Contract and any modification or addition made or approved by SEPCO.</p> <p>x) The Supplier's Bid is the completed Bid document submitted by the Supplier to SEPCO.</p>
2. Application and Interpretation	2.1	These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.
	2.2	In interpreting these Conditions of Contract headings and marginal notes are used for convenience only and shall not affect their interpretations unless specifically stated; references to the singular include the plural and vice versa and masculine include the feminine. Words have their ordinary meaning under the language of the Contract unless specifically defined.
	2.3	The documents forming the Contract shall be interpreted in the following order of priority: <ul style="list-style-type: none"> i. Form of Contract, ii. Special Conditions of Contract, iii. General Conditions of Contract, iv. Letter of Acceptance, v. Certificate of Contract Commencement vi. Specifications vii. Contractor's Bid, and viii. Any other document listed in the Special Conditions of Contract as forming part of the Contract.
3. Conditions Precedent	3.1	Having signed the Contract, it shall come into effect on the date on which the following conditions have been satisfied: <ul style="list-style-type: none"> a) Submission of performance Security (or guarantee) in the form specified in the SCC; b) Furnishing of Advance Payment Unconditional Guarantee.
	3.2	If the Condition precedent stipulated on GCC Clause 3.1 is not met by the date specified in the SCC this contract shall not come into effect;
	3.3	If SEPCO is satisfied that each of the conditions precedent in this contract has been satisfied (except to the extent waived by him, but subject to such conditions as he shall impose in respect of such waiver) he shall promptly issue to the supplier a certificate of Contract commencement, which shall confirm the start date.
4. Governing Language	4.1	The Contract as all correspondence and documents relating to the contract exchanged by the Supplier and SEPCO shall be written in the language specified in SCC. Subject to GCC Clause 3.1, the version of the Contract written in the specified language shall govern its interpretation.
5. Applicable Law	5.1	The contract shall be governed and interpreted in accordance with the laws of Pakistan, unless otherwise specified in SCC.
6. Country of Origin	6.1	The origin of Goods and Services may be distinct from the nationality of the Supplier.
7. Standards	7.1	The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, as per NTDC Specification No DDS-78:2008 (amended to date). When no applicable standard is mentioned, the American Standards (such as ACI, IEEE, ASME, etc.) or the Pakistani standards such as PSQCA such standards shall be the latest issued by the concerned institution.
8. Use of Contract Documents and Information; Inspection and Audit by the Government of Pakistan	8.1	The Supplier shall not, without SEPCO's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of SEPCO in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.



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	8.2	The Supplier shall not, without SEPCO's prior written consent, make use of any document or information enumerated in GCC Clause 7.1 except for purposes of performing the Contract.
	8.3	Any document, other than the Contract itself, enumerated in GCC Clause 7.1 shall remain the property of SEPCO and shall be returned (all copies) to SEPCO on completion of the Supplier's performance under the Contract if so required by SEPCO.
	8.4	The Supplier shall permit the Government of Pakistan or / and donor agencies involved in financing the project to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the Government of Pakistan or / and the appropriate donor agencies if so required by the Government of Pakistan or / and the appropriate donor agencies.
9. Patent and Copy Rights	9.1	The Supplier shall indemnify SEPCO against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in Pakistan.
	9.2	The patent right in all drawings, documents, and other materials containing data and information furnished to SEPCO by the Supplier herein shall remain vested in the supplier, or, if they are furnished to SEPCO directly, or through the Supplier by any third party, including suppliers of materials, the patent right in such materials shall remain vested in such third party.
10. Performance Security (Guarantee)	10.1	The Performance Security (Guarantee) shall be provided to SEPCO no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to SEPCO, and denominated in the types and proportions of the currencies in which the Contract Price is payable as specified in the SCC.
	10.2	The proceeds of the Performance Security (or Guarantee) shall be payable to SEPCO as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
	10.3	The Performance Security (or Guarantee) shall be in one of the following forms: a) A bank guarantee, an irrevocable letter of credit issued by a reputable bank, or in the form provided in the Bidding Documents or another form acceptable to SEPCO; or b) A cashier's or certified check.
	10.4	The performance security (or guarantee) will be discharged by SEPCO and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations unless otherwise specified in SCC.
11. Inspections and Test	11.1	SEPCO or its representative shall have the right to inspect and /or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to SEPCO. SCC and the Technical Specifications shall specify what inspections and tests SEPCO shall notify the Supplier in writing or in electronic forms that provide record of the content of communication, in a timely manner, of the identity of any representatives retained for these purposes.
	11.2	The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery, and/or at the Goods' final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to SEPCO.
	11.3	Should any inspected or tested Goods fail to conform to the Specifications, SEPCO may reject the Goods, and the Supplier shall replace the rejected Goods to meet specification requirements free of cost to SEPCO.
	11.4	SEPCO's right to inspect, test and, where necessary, reject Goods after the Goods' arrival in SEPCO's country shall in no way be limited or eared by reason of the Goods having previously been inspected, tested, and passed by SEPCO or its representative prior to the Goods' shipment from the country of origin.
	11.5	Nothing in GCC Clause 10 shall in any way release the supplier from any warranty or other obligations under this Contract.



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<p>12. Packing</p>	<p>12.1</p>	<p>The supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods final destination and the absence of heavy handling facilities at all points in transit.</p>
	<p>12.2</p>	<p>The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by SEPCO.</p>
<p>13. Delivery and Documents</p>	<p>13.1</p>	<p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping and or other documents to be furnished by the Supplier as specified in SCC.</p>
	<p>13.2</p>	<p>For purposes of the Contract, "EXW", "FOB", "FCA", "CIF", "CIP," and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris.</p>
	<p>13.3</p>	<p>Documents to be submitted by the Supplier are specified in SCC.</p>
<p>14. Insurance</p>	<p>14.1</p>	<p>The Goods supplied under the Contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery in the manner specified in the SCC.</p>
<p>15. Transportation</p>	<p>15.1</p>	<p>Where the Supplier is required under Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Procuring Agency or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.</p>
	<p>15.2</p>	<p>Where the Supplier is required under Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in Pakistan, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.</p>
	<p>15.3</p>	<p>Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within Pakistan, defined as the Project Site, transport to such place of destination in Pakistan, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.</p>
<p>16. Related Services</p>	<p>16.1</p>	<p>The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:</p> <ul style="list-style-type: none"> a) Performance or supervision of on-site assembly, Installation Commissioning and/or start-up of the supplied Goods; b) Furnishing of tools required for assembly and/or maintenance of the supplied Goods; c) Furnishing of detailed operations and maintenance manual for each appropriate unit of the supplied Goods; d) Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and e) Training of SEPCO's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.
	<p>16.2</p>	<p>Prices charged by the Supplier for related services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.</p>



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17. Spare Parts	17.1	As specified in SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier: a) Such spare parts as SEPCO may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and b) In the event of termination of production of the spare parts: i. Advance notification to SEPCO of the pending termination, in sufficient time to permit SEPCO to procure needed requirements; and ii. Following such termination, furnishing at no cost to SEPCO, the blueprints, drawings, and specifications of the spare parts, if requested.
18. Warranty / Defect Liability Period	18.1	The Supplier warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models and that they have incorporated all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the SEPCO, specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in Pakistan.
	18.2	This warranty shall remain valid for a period specified in the SCC after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract.
	18.3	SEPCO shall promptly notify the Supplier in writing or in electronic forms that provide a record of the content of communication of any claims arising under this warranty.
	18.4	Upon receipt of such notice, the manufacturer/supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof. The cost of lifting the defective materials its subsequent repair or replacement and returning back to SEPCO stores shall be borne by the supplier.
	18.5	If the supplier, having been notified, fails to remedy the defect(s) within the period specified, SEPCO may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which SEPCO may have against the Supplier under the Contract.
19. Payment	19.1	The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC.
	19.2	The Supplier's request(s) for payment shall be made to SEPCO in writing or in electronic forms that provide a record of the content of communication, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and by documents submitted pursuant to GCC Clause 13, and upon fulfillment of other obligations stipulated in the Contract.
	19.3	Payments shall be made promptly by SEPCO, within sixty (30) days after submission of an invoice or claim by the supplier. If SEPCO makes a late payment, the Supplier shall be paid interest on the late payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the rate as specified in the SCC.
	19.4	The currency or currencies in which payment is made to the Supplier under this Contract shall be specified in SCC subject to the following general principle: payment will be made in the currency or currencies in which the payment has been requested in the Supplier's Bid.
	19.5	All payments shall be made in the currency or currencies specified in the SCC pursuant to GCC Clause 19.4.
20. Prices	20.1	The contract price shall be specified in the Contract Agreement subject to any additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
	20.2	Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its Bid, with the exception of any price adjustments authorized in SCC or in SEPCO's request for bid validity extension, as the case may be.



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<p>21. Change Orders</p>	<p>21.1</p>	<p>SEPCO may at any time, by a written order given to the Supplier pursuant to GCC Clause 22, make changes within the general scope of the Contract in any one or more of the following:</p> <ul style="list-style-type: none"> a) Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for SEPCO; b) The method of shipment or packing; c) The place of delivery; and/or d) The Services to be provided by the Supplier.
	<p>21.2</p>	<p>If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of SEPCO change order.</p>
	<p>21.3</p>	<p>Prices to be charged by the supplier for any related services that might be needed but which were not included in the Contract shall be agreed upon in advance by the Parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.</p>
<p>22. Contract Amendments</p>	<p>22.1</p>	<p>Subject to GCC Clause 20, no variation in or modification of the terms of the Contract shall be made except by a written amendment signed by the parties.</p>
<p>23. Assignment</p>	<p>23.1</p>	<p>Neither SEPCO nor the Supplier shall assign, in whole or in part, obligations under this Contract, except with the prior written consent of the other party.</p>
<p>24. Sub- contracts</p>	<p>24.1</p>	<p>The Supplier shall consult SEPCO in the event of subcontracting under this contract if not already specified in the Bid. Subcontracting shall not alter the Supplier's obligations.</p>
	<p>24.2</p>	<p>Subcontracts must comply with the provision of GCC Clause 5.</p>
<p>25. Delays in the Supplier's Performance</p>	<p>25.1</p>	<p>Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by SEPCO in the Schedule of Requirements.</p>
	<p>25.2</p>	<p>If at any time during the performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify SEPCO in writing or in electronic forms that provide record of the content of communication of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, SEPCO shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.</p>
	<p>25.3</p>	<p>Except as provided under GCC Clause 28, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon pursuant to GCC Clause 25.2 without the application of liquidated damages.</p>
<p>26. Liquidated Damages</p>	<p>26.1</p>	<p>Subject to GCC Clause 28, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, SEPCO shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the performance security (or guarantee) specified in SCC. Once the said maximum is reached, SEPCO may consider termination of the Contract pursuant to GCC Clause 26.</p>
<p>27. Termination for Default</p>	<p>27.1</p>	<p>SEPCO or the Supplier, without prejudice to any other remedy for breach of contract, by written notice of default sent to the concerned party may terminate the Contract if the other party causes a fundamental breach of the Contract.</p>



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	27.2	<p>Fundamental breaches of contract shall include, but shall not be limited to the following:</p> <ul style="list-style-type: none"> a) the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by SEPCO pursuant to GCC Clause 24; or b) the Supplier fails to perform any other obligation(s) under the Contract; c) Supplier's failure to submit performance security (or guarantee) within the time stipulated in the SCC; d) the supplier has abandoned or repudiated the contract. e) SEPCO or the Supplier is declared bankrupt or goes into liquidation other than for reconstruction or amalgamation; f) a payment is not paid by SEPCO to the Supplier after 84 days from the due date for payment; g) the SEPCO gives Notice that goods delivered with a defect is a fundamental breach of Contract and the Supplier fails to correct it within a reasonable period of time determined by SEPCO; and h) if SEPCO determines, based on reasonable evidence, that the Supplier has engaged in corrupt, coercive, collusive, obstructive or fraudulent practices, in competing for or in executing the Contract. <p>For the purpose of this clause: "Corrupt and Fraudulent Practice" means the practices as described in Rule-2 (1) (f) of Public Procurement Rules-2004.</p>
	27.3	<p>In the event SEPCO terminates the contract in whole or in part, pursuant to GCC Clause 26.1 SEPCO may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to SEPCO for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the contract to the extent not terminated.</p>
28. Termination for Force Majeure	28.1	<p>Notwithstanding the provisions of GCC Clauses 25, 26, and 27, neither Party shall have any liability or be deemed to be in breach of the Contract for any delay nor is other failure in performance of its obligations under the Contract, if such delay or failure is a result of an event of Force Majeure.</p> <p>For purpose of this clause, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood, epidemics, or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent.</p>
	28.2	<p>If a Party (hereinafter referred to as "the Affected Party") is or will be prevented from performing its substantial obligation under the contract by Force Majeure, it shall give a Notice to the other Party giving full particulars of the event and circumstance of Force Majeure in writing or in electronic forms that provide a record of the content of communication of such condition and the cause thereof. Unless otherwise directed by SEPCO in writing or in electronic forms that provide a record of the content of communication, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.</p>
29. Termination for Insolvency	29.1	<p>SEPCO may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to SEPCO.</p>

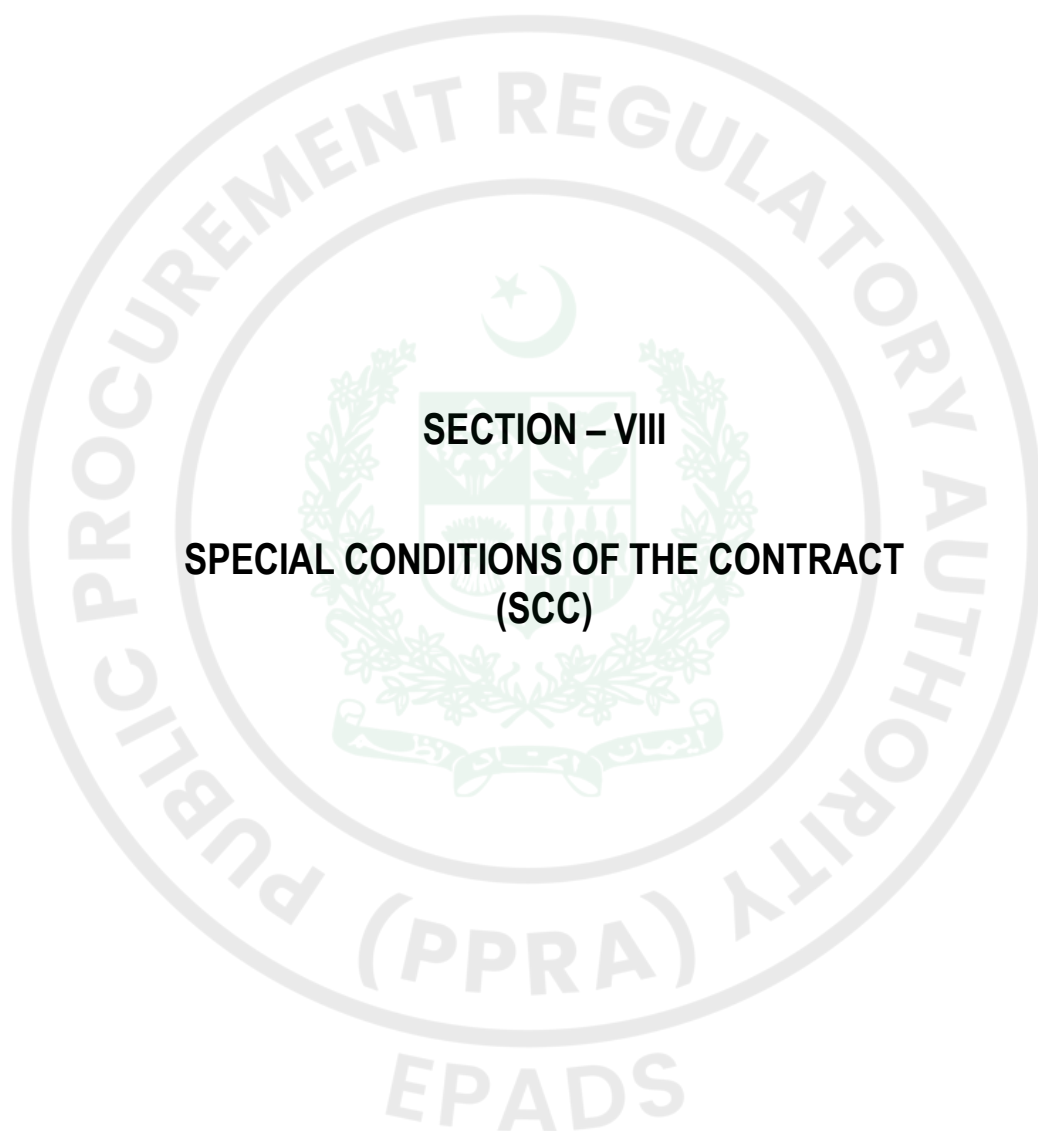


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30. Termination for Convenience	30.1	SEPCO, by written notice sent to the Supplier, may terminate the contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for SEPCO's convenience, the Contract is terminated, and the date upon which such termination becomes effective.
	30.2	The Goods that are complete and ready for shipment within thirty (30) days after the Supplier's receipt of notice of termination shall be accepted by SEPCO at the Contract terms and price. For the remaining Goods, SEPCO may elect: a) To have any portion completed and delivered at the Contract terms and prices; and / To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services and for materials and parts previously procured by the Supplier.
31. Dispute Resolution	31.1	In the event of any dispute arising out of this contract, either party shall issue a notice of the dispute to settle the dispute amicably. The parties hereto shall, within twenty-eight (28) days from the notice date, use their best efforts to settle the dispute amicably through mutual consultations and negotiation. Any unsolved dispute may be referred to by either party to an arbitrator that shall be appointed by mutual consent of both parties.
	31.2	After the dispute has been referred to the arbitrator, within 30 days, or within such other period, as may be proposed by the Parties, the Arbitrator shall give its decision. The rendered decision shall be binding to the Parties.
32. Procedure for Disputes Resolution	32.1	The arbitration shall be conducted in accordance with the arbitration procedure published by the Institution named and in the place shown in the SCC.
	32.2	The rate of the Arbitrator's fee and administrative costs of arbitration shall be borne equally by the Parties. The rates and costs shall be in accordance with the rules of the Appointing Authority. In conducting arbitration to its finality each party shall bear its incurred costs and expenses.
	32.3	The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and in the place shown in the SCC.
33. Replacement of Arbitrator	33.1	Should the Arbitrator resign or die, or should SEPCO and the Supplier agree that the Arbitrator is not functioning in accordance with the provisions of the contract, a new Arbitrator shall be appointed by mutual consent of both parties.
34. Limitation of Liability	34.1	Except in cases of criminal negligence or willful conduct, and in the case of infringement pursuant to GCC Clause 8, a) The supplier shall not be liable to the SEPCO, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to SEPCO; and b) The aggregate liability of the Supplier to SEPCO, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment or to any obligation of the Supplier to indemnify SEPCO with respect to patent infringement.
35. Notices	35.1	Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or in electronic forms that provide a record of the content of communication and confirmed in writing or in electronic forms that provide a record of the content of communication to the other party's address specified in SCC.
	35.2	A notice shall be effective when delivered or on the notice's effective date, whichever is later.
36. Taxes and Duties	36.1	A foreign Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside Pakistan.
	36.2	If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in Pakistan SEPCO shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.
	36.3	A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to SEPCO.



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SECTION – VIII
SPECIAL CONDITIONS OF THE CONTRACT
(SCC)



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Special Conditions of Contract (SCC)

The following Special Conditions of Contract (SCC) shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC. The corresponding clause number of the GCC is indicated in parentheses.

SCC Clause Number	GCC Clause Number	Amendments of, and Supplements to, Clauses in the GCC
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Definitions (GCC 1)

1.	1.1	The Procuring Agency is: Sukkur Electric Supply Company (SEPCO)
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Documents forming the Contract (GCC)

2.	2.3	<ol style="list-style-type: none"> (1) Purchase Order (PO) (2) Performance Guarantee submitted by the successful Firm and its verification from the concerned Bank. (3) Letter of Intent (LOI) issued by SEPCO and its acceptance by the successful bidder (4) Special Conditions of Contract, (5) General Conditions of Contract, (6) Specifications (7) Contractor's Bid on EPADS (8) Bidding Document and Notice inviting to Bids (9) Addendum (if any)
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Conditions Precedent (GCC 3)

3.	3.1	Having signed the contract it shall come into effect on the date of its issuance.
4.	3.1 (b)	Not applicable

Governing Language (GCC 4)

5.	4.1	The Governing Language shall be English
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Applicable Law (GCC 5)

6.	5.1	The Applicable Law shall be: Laws of the Government of Pakistan and PPRA rules.
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Performance Security (or Guarantee) (GCC 10)

7.	10.1	The amount of performance security (or guarantee), as a percentage of the Contract Price, shall be: 5% of the total bid price (including GST) Time period of validity: shall be 24 months from the date of completion of supply.
8.	10.3 (a) & (b)	The Performance Security/Guarantee shall be in PKR issued in favour of Chief Executive Officer (CEO) SEPCO and it shall be in the form as the per following: <ol style="list-style-type: none"> a. A bank guarantee issued by a scheduled bank of Pakistan in the form provided in the Bidding Documents. b. Call Deposit Receipt (CDR) Note: The performance security from any insurance company will not be acceptable in any case and the bid shall be liable for rejection.
	10.4	After delivery and acceptance of the Goods, the Performance Security (or guarantee) shall be withheld to cover the Supplier's obligations in accordance with the SSC clause 14 & 15 (Warranty GCC-18). The Performance Security (or guarantee) shall be extended by the firm in case any defect or replacement of material is claimed until the expiry/extended warranty period.

Inspections and Tests (GCC 11)



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<p>9.</p>	<p>11.1 11.2 11.3 11.4</p>	<p>Inspection and tests prior to shipment of Goods and at final acceptance are as follows:</p> <p>Quality and quantity inspection shall be carried out prior to shipment of Goods by the manufacturer(s) at the supplier's own expense and responsibility in terms of the items specified in the specifications. The supplier shall submit the inspection certificate issued by himself which should be attached with the certificate(s) of the manufacturer(s) to the Procuring Agency in order to ensure that the goods are manufactured in compliance with the contract.</p> <p>The joint inspection shall be carried out at the manufacturer's/supplier's premises by the Chief Engineering (MI) PPMC Lahore or his authorized representative and SEPCO representative. Notice in writing shall have to be given to the office of Chief Engineering PPMC and Manager Material Management SEPCO simultaneously by the manufacturer/supplier when the store against the order is ready for inspection. The inspection call shall be effective when delivered to SEPCO or Chief Engineer (MI) PPMC Lahore, whichever is later.</p> <p>The manufacturer/Supplier shall have to deposit Inspection Fee @ 0.5% of the cost of material on order while offering material for inspection in the Account of Chief Engineer (MI) PPMC.</p> <p>All expenses of Inspector(s) of SEPCO shall be borne by the Tenderer including Boarding/ Lodging, Daily Allowance etc.</p> <p>Stage inspection may be carried out, if necessary.</p> <p>All reasonable facilities as provided in the specification or followed by the industry or trade, in general, shall have to be accorded to the inspecting officers at your expense for carrying out the inspection.</p> <p>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.</p> <p>The decision of the Inspecting Officer shall be binding on the supplier.</p> <p>If the stores are rejected as aforesaid, then without prejudice to the right of the Purchaser, the supplier may submit stores in replacement of those rejected but resubmission will not mean the extension of the delivery period.</p> <p>On final rejection, the purchaser shall have the following rights:</p> <ol style="list-style-type: none"> a. To purchase the rejected goods at the supplier's cost and expense. b. To terminate the contract/PO and recover from the supplier the loss the Company, thereby incurs. <p>SEPCO reserves the right to re-inspect, re-test (at its own expense) and, where necessary, reject the Goods after the arrival at the final destination. This shall in no way be limited to or eased because of the Goods having previously been inspected, tested and passed by SEPCO or its representative prior to the Goods' shipment. The decision of SEPCO based on the reports of re-inspection and/or re-</p>
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		<p>testing shall be binding on the manufacturer/supplier.</p> <p>A. VISUAL INSPECTION:</p> <p>Visual Inspection shall be carried out by SEPCO Material Inspection Committee and will highlight and communicate any defect found at time of visual inspection to this office as well as to the supplier. The concerned Deputy Manager Regional Store SEPCO shall be issued GRN after issuance of Verification Certificate in accordance with Material Quality and as per Specification / Standard by SEPCO Material Inspection Committee.</p>
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Packaging (GCC 12)

10.	12.2	<p>The Goods shall be packed properly in accordance with standard export packing specified by the Procuring Agency in the Technical Specification.</p> <p>The word “Sukkur Electric Supply Company” or SEPCO with PO No. & year of manufacturing together with other essential markings as per the Specification shall be provided.</p>
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Delivery and Documents (GCC 13)

11.	13.2	<p>The Goods shall be supplied on FCS (Free Consignee Stores) at Regional Stores SEPCO ROHRI & LARKANA basis. The unloading of the goods shall be the responsibility of the Supplier.</p>
12.	13.3	<p>Upon delivery of the Goods, the Supplier shall notify SEPCO and mail the following documents to SEPCO:</p> <ul style="list-style-type: none"> i. one original plus four copies of the Supplier’s invoice showing Goods’ description, quantity, unit price, and total amount; ii. delivery note, railway receipt, or truck receipt; iii. Manufacturer’s or Supplier’s warranty certificate; iv. Certificate to the effect that the prime material has been used in the manufacturing of Goods, and if any evidence of used/scrap material is found at a later stage the supplied Goods shall be replaced free of cost with the Goods having prime material. Also, if any manufacturing, design and/or inherent fault is detected at later stage the faulty Goods shall be replaced with Healthy Goods. The inspection procedure for the replaced goods shall be same as per the inspection requirement in the Technical Specifications and the Contract. v. inspection certificate issued by the nominated inspection agency, and the Supplier’s factory inspection/test report; and vi. certificate of country of origin issued by Pakistan Chamber of Commerce and Industry or equivalent authority in the country of origin in duplicate. <p>The above documents shall be received by SEPCO before the arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.</p>

Insurance (GCC 14)

13.	14.1	<p>The Insurance shall be in an amount equal to 110 percent of the FCS value of the Goods from “warehouse” to “warehouse” on “All Risks” basis, including War Risks and Strikes.</p>
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Warranty (GCC 18)



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14.	18.2	<p>The warranty period shall be for a period of 24 Months as stated in the relevant (S&S) NTDC Specification for Single Phase Meter AMR. The warranty period shall be started from the date of issuance of GRN.</p> <p>The Supplier shall be held responsible for all the losses and the unacceptable Goods shall be substituted with the acceptable Goods free of cost.</p>
15.	18.4 & 18.5	<p>Upon receipt of notice for correction of defects under the warranty period the manufacturer/supplier shall, within 45 days (or the period specified in Specification) and with all reasonable speed, repair or replace the defective Goods or parts thereof. The cost of lifting the defective Goods its subsequent repair or replacement and returning back to SEPCO stores shall be borne by the supplier.</p> <p>If the supplied Goods or its part(s) is/are damaged during the warranty and need repair, its warranty period will be protected. The warranty period shall effectively remain active from the date of intimation of defective goods to the manufacturer/supplier and shall resume again once the defect has been removed and goods supplied back to SEPCO stores. For Example: An item has a warranty period of 24 months. Its warranty starts on 1st January and it gets defective after its successful use/commissioning after 6 months on 5th July. The manufacturer/supplier is intimated about the defect on 7th July. The remaining warranty is 1year, 5 months and 23days. This remaining warranty period shall remain reserved. The item is lifted for repair on 15th July and returned to SEPCO stores on 7th August. The remaining warranty of 1 year, 5 months and 23 days will resume from 7th August.</p> <p>If the Goods under warranty period already repaired are damaged again (second time) the procedure mentioned for the first time damage shall be followed. Accordingly, the same procedure shall be followed for damage/defect for the third time. However, if the goods under warranty period are damaged for the third time the manufacturer/supplier shall be issued a Performance Certificate that will have an impact on its participation in future bids/tenders in SEPCO.</p> <p>The warranty period of the entirely replaced item shall be as per the initial warranty period of new goods.</p> <p>NOTE: Liquidated Damages shall be applicable where there is a delay in delivery of material under the warranty claim. Liquidated Damages shall be applicable as per SCC clause 20.</p>

Payment (GCC 18)



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16.	19.1	<p>The payment will be made directly by the Chief Financial Officer / FD Finance Director SEPCO Sukkur within (30) days on the presentation of the following documents:</p> <ol style="list-style-type: none"> i. Invoice of the supplied material in triplicate. ii. Delivery Challan duly acknowledged and signed by the consignee. iii. GRN issued by concerned Deputy Manager, Regional Store SEPCO Concerned and Countersign by Manager MM SEPCO Sukkur. iv. Warranty Certificate. v. Inspection Certificate issued by Chief Engineer, (MI) PPMC or his authorized representative. vi. Confirmation letter of acceptance of performance Bond/Security by the Manager (MM) SEPCO. vii. Confirmation letter by the Manager (MM) SEPCO against each invoice claim regarding the adequacy of the validity of the Performance guarantee with respect to supplies / delivery. viii. Certificate to the effect that the billed amount has not been claimed or received earlier (Non-payment certificate). ix. Professional Tax paid certificate by the firm. x. All Federal & Provincial Taxes will be applied as per prevailing laws. xi. Copy of General Sales Tax/Excise Duty Invoice. xii. The manufacturer/supplier in its invoices shall also give an undertaking, in case of omission of any deductible amount; SEPCO's claim at any later stage (through pre-audit / post audit) shall be acceptable to them. xiii. As per directions of FBR dated. 3.9.2015 conveyed vide C.E (Operation) PEPCO vide letter No. 1918-28 dated. 17.09.2015, the payment to the registered persons may be linked with the active taxpayer status of the suppliers as per FBR database. If any registered supplier is not in ATL his payment should be stopped till he files his mandatory returns and appears on ATL of FBR. <p>NOTE: Payment shall be made as follows:</p> <ol style="list-style-type: none"> xiv. Ninety percent (90%) Payment will be made upon delivery of the material and issuance of GRN (Goods Received Note). xv. The remaining ten percent (10%) shall be released upon issuance of the Tier-2 UDIL Certificate. <p>PARTIAL DELIVERIES AND PARTIAL PAYMENTS ARE ALLOWED.</p> <p>The amount of 18% sales tax will be reimbursed by the Chief Financial Officer/FD Finance Director SEPCO Sukkur as under:</p> <ol style="list-style-type: none"> i. Sales Tax return cum payment Challan for the month of delivery of material. ii. Copy of GRN duly stamped and signed by the respective consignees. iii. Sales Tax Invoice as per GRN above. iv. Any increase/decrease in the existing tariff of custom duty/Sales tax or any other tax is imposed or charged by the Government of Pakistan/Provincial Government, the same will be adjusted by the Chief Financial Officer/FD Finance Director, SEPCO Limited, Sukkur on presentation of documentary evidence. <p>In case the manufactures who pay lump-sum Sales Tax, they shall also submit an affidavit on non-judicial paper separately that "Challan includes the amount of Rs. _____ of Sales Tax for supply of material to SEPCO against P.O. _____"</p>
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		No._____ dated._____
17.	19.3	Not applicable.
18.	19.5	All payments shall be made in PKR

Prices (GCC 20)

19.	20.1 & 20.2	Prices shall not be adjusted. The offered price shall be firm and final.
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Liquidated Damages (GCC 26)

20.	26.1	<p>If the supplier fails to deliver the Goods or any consignment thereof within the specified delivery period, the purchaser shall be entitled at his option, either:</p> <p>a) To recover from the supplier 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 PO/contract price, except:</p> <ul style="list-style-type: none"> • Where un-delivered stores hold up the use of other stores, liquidated damages shall be levied on the total value of the contract/PO. • The recovery of liquidated damages mentioned above can be effected from any payment due to the supplier from any unit of SEPCO Or <p>b) To purchase from elsewhere, without notice to the supplier, at the supplier's risk and cost, the stores not delivered, without canceling the contract/PO in respect of the consignment not yet due for delivery Or</p> <p>c) To cancel the contract/PO at the supplier's risk and cost.</p> <p>In the event of action being taken under (b) or (c) above, the supplier shall be liable for any loss which the purchaser may suffer on the account, but the supplier shall not be entitled to any gain on repurchase made against the supply order.</p>
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Procedure for Dispute Resolution (GCC 32)

21.	32.1	As per the Laws of Government of Pakistan.
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22.	32.3	<p>(a) For Contracts to be entered with foreign Contractor/ Service Provider: All disputes arising in connection with the present Contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with said Rules.</p> <p>(b) For Contracts to be entered with nationals of Pakistan:</p> <ol style="list-style-type: none"> 1. If any dispute of any kind whatsoever shall arise between SEPCO and the Supplier in connection with or arising out of the Contract, including without prejudice to the generality of foregoing, any question regarding its existence, validity, termination and the execution of the Contract– whether during developing phase or after their completion and whether before or after the termination, abandonment or breach of the Contract – the parties shall seek to resolve any such dispute or difference by mutual diligent negotiations in good faith within 7 (seven) days following a notice sent by one Party to the other Party in this regard. 2. At future of negotiation the dispute shall be resolved through Arbitrator shall be appointed by mutual consent of both parties, after consultation between the contractor & procuring agency to act as the adjudicator in case of any arisen disputes in accordance with BDS Clause 48. 3. At the event of failure of mediation to resolve the dispute relating to this contract such dispute shall finally be resolved through binding Arbitration by sole arbitrator in accordance with Arbitration Act 1940. The Arbitration shall take place in SEPCO Sukkur and proceedings will be conducted in English language. 4. The cost of the mediation and arbitration shall be shared by the parties in equal proportion however the both parties shall bear their own costs and lawyer’s fees regarding their own participation in the mediation and arbitration. However, the Arbitrator may make an award of costs upon the conclusion of the arbitration making any party to the dispute liable to pay the costs of another party to the dispute. 5. Arbitration proceedings as mentioned in the above clause regarding resolution of disputes may be commenced prior to, during or after delivery of goods. <p>Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree that SEPCO shall pay the Supplier any monies due to the Supplier.</p> <p>Furthermore, the supplier agrees that the territorial jurisdiction of the litigation shall be Sukkur District. No court other than Sukkur District will entertain any judicial matter in respect thereto.</p>
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Notices (GCC 35)

23.	35.1	<p>The address of the Procuring Agency: Manager Material Management, Sukkur Electric Power Company (SEPCO) Regional Head Quarter, Old Thermal Power Station Sukkur Pakistan Direct: +92-719310798, P.N: +92-719310796 Email: arif.bhutto@sepco.com.pk Email: managermmsepco@gmail.com</p>
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PRICE SCHEDULE FOR SEPCO TENDER NO 1383/26

- Due by 10:30 AM on 09.06.2026
- Tender will be opened at 12:30 P.M on 09.06.2026

NAME OF BIDDER: _____

Description of Stores	NTDC PPMC Specification (Amended todate)	Quantity Required (No)	FCS Unit Rate (As per SCC Clause 11) in PKR Without 18% GST	Total Amount in PKR (3 x 4)
1	2	3	4	5
Static Single Phase 2-Wire, GSM/GPRS 240V, 10/40Amp, 50Hz, having Accuracy Class 1.0 (kWh) and built-in programmable features, AMI Smart Energy Meters with capability of remote disconnect / reconnect relay and PTA compliant 4G communication module (with backward compatibility) with MDC driver/software.	As per WAPDA Specification DDS-65:2003, DDS-98:2011 (Amended to date), DDS-110:2012 and relevant IEC Standards. The backup battery must have minimum capacity of 1200 mAh with support of super capacitor. The MDC (driver) software must be certified on latest release of PITC-UDIL Version	30000 Nos		
			18% GST:	
			GRAND TOTAL:	

(In words: _____)

Bid Security:

Bid Security / Guarantee i.e. Rs. 10,800,000/-, the bid validity period for the aforementioned tenders shall 120 days. The bank instrument shall remain valid for an additional 28 days beyond the validity date.

Bid Security / Pay order No. _____ Date: _____

Bid Security Validity _____

Name of Bank & Branch _____

Delivery Schedule:

- 50% quantity shall be supplied within 90 days or earlier & Remaining 50% quantity shall be delivered from 91st to 120th days or earlier from the date of issue of purchase order. Delivery period shall be completed not later than the dates specified.
- The terms "Delivery Date" shall mean the date of 1st day of Inspection or 15th day of Inspection Call whichever is earlier, shall be reckoned as date of delivery of Store to 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.

Note:

- This tender is governed by Procurement Rules issued by PPRA (Amended todate) and WAPDA General condition of contract Dated 12/08/1984 (Amended todate).
- Marking of page numbers of the bid alongwith all enclosures must be ensured in sequence to ascertain the number of documents attached with the bidding documents.



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SECTION – V

SCHEDULE OF REQUIREMENTS, TECHNICAL SPECIFICATIONS



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Schedule of Requirements

The delivery schedule expressed as days stipulates hereafter a delivery date which is the date of delivery at Regional Stores SEPCO Rohri & Larkana on FCS (Free Consignee Stores) basis. The unloading at SEPCO stores shall be the responsibility of the contractor.

- In order to determine the correct date of delivery hereafter specified, the Procuring Agency has taken into account the additional time that will be needed for international or national transit to the Project Site or to another common place. **50% quantity shall be supplied within 90 days or earlier & Remaining 50% quantity shall be delivered from 91st to 120th days or earlier** from the date of issue of purchase order. Delivery period shall be completed not later than the dates specified.

Number	Description	Quantity	50% quantity shall be supplied within 90 days or earlier & Remaining 50% quantity shall be delivered from 91 st to 120 th days or earlier

Technical Specifications

As per NTDC Specification DD-S-65:2003, DDS-98:2011, DDS-110:2012 and IEC 62055-31 for relays (all amended to date)



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SPECIAL PROVISIONS AND SPECIFICATIONS-TECHNICAL PROVISIONS FOR SINGLE PHASE AMI METERS

SEPCO SPECIAL CONDITIONS

- a) This Tender is governed by General Conditions of Contract for Purchase by WAPDA Dated: 12.08.1984 amended to-date & latest Purchase Procedure, Registration Procedure, PPMC Procurement Guidelines / Instructions and PPRA Rules 2004 (Amended to-date).
- b) Rate should be quoted inclusive of taxes / duties & 0.5% Inspection Charges (Non-reimbursable) but exclusive of Sales Tax on the basis of free delivery at consignee's stores (FCS) i.e. Rohri & Larkana in local currency without involving any foreign exchange.
- c) Bids having less than 100% of the quantities of tender will not be accepted. The Bid shall be quoted on signed SEPCO prescribed format / bid schedule. The conditional bids / rates shall not be accepted.
- d) Single Phase AMR Smart Energy Meters should comply with relevant NTDC Design & Standard DDS-65:2003, DDS-98:2011 & Relevant IEC Standards for Relay operations (Remote Reconnection / Disconnection) (all amended to date), the Bidder shall have to obtain the prototype approval from the office of Chief Engineer (S&S), Lahore before start of mass production. Drawing and prototype samples for prototype testing for at least Three (03) Numbers complete Samples per meter shall be submitted within 30 days from the date of signing of Contract Agreement to Chief Engineer (S&S) NTDC Lahore. Delay in offering the prototype beyond 30 days will be considered as delay in delivery and same late delivery charges / liquidated damages will be applicable as for delay in supply of goods. All expenses of testing charges will have to be borne by the manufacturer/supplier. Any change suggested during prototype testing for compliance of specification shall have to be incorporated without any extra price or claim. The Chief Engineer (S&S) NTDC will approve the prototype sample within 30-days after its submission.
In case of failure of 1st prototype Sample, the material shall be improved and second samples must be re-offered for prototype testing to Chief Engineer (S&S) NTDC by the Bidder, within 10 days and get prototype approval within 20 days after its submission. The time taken for improvement in samples and resubmission of drawings will not entitle the manufacturer to claim extension in delivery period on this account. If the Prototype fails second time, firm will be considered Non-Responsive and performance guarantee will be fortified / encashed in favor of SEPCO and the Contract Agreement will stand cancelled. SEPCO reserves the right to place Letter of Acceptance on the second lowest bidder. Any further delay shall be on account of the Supplier and SEPCO reserves the right to deduct the Liquidated Damages according to the relevant clause of the Purchase Order.
The supplier/manufacturer shall have to carry out specified type tests & sample tests as described in PPMC / NTDC Specification Nos. DDS 65:2003, DDS-98:2011 (amended to-date) in the presence of NTDC / WAPDA Engineer(s) before mass production. The testing will be carried out at manufacturer's premises / HV & SC Lab Rawat /RTL Faisalabad or any other Lab of International repute like KEMA Holland, CRIEP Lab Japan, CESI Lab Italy to be approved by the Chief Engineer (S&S) NTDC. All expenses including service charges 192 testing charges, Traveling, Boarding / Lodging and Daily Allowance etc., of PPMC / NTDC Engineers shall be borne by the manufacturer.
- e) Optical port of the proposed AMI meters should be secured by cover or any other suitable material which provide barrier for communication through optical port to avoid unauthorized access. Last date of meter programming should also be displayed in scrolling menu of meter display.
- f) The offered AMR Energy Meters data (through vendor's MDC driver software) must be compliant to Universal Data Integration Layer (UDIL), developed by PITC for multivendor compliance.
- g) The LOI will be issued to most advantageous bidder. The successful bidder has to submit PITC UDIL compliance requirements for Tier-1 Certification to PITC within 20 days of issuance of LOI and obtain UDIL compliance Tier-1 certificate from PITC within 30 days (from the submission of compliance requirements for Tier-I (extendible if both parties agreed), on latest PITC version applicable at the time of issuance of LOI. Failure to submit the requirements to PITC within stipulated time frame shall make the most advantageous bidder non-responsive and steps for forfeiture of bid security shall be taken by SEPCO. The performance guarantee shall be submitted within 07 days of issuance of UDIL certificate from PITC for Tier-1, then P.O will be issued.



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The UDIL Compliance testing will comprise of two phases / Tiers as under:

- a) **UDIL Compliance Testing Tier-1 Certificate:**
In this phase MDCs will be tested for UDIL Compliance as per request proforma submitted by Vendors. After successful completion of which UDIL Compliance testing Tier-1 certificate will be issued.
- b) **UDIL Performance Testing Tier-2 Certificate:**
Tier-2 Certificate will be issued by committee headed by Regional Manager (M&T) whereas concerned S.E (Opr) & Incharge AMI Cell will be Members of the Committee, after consultation with PITC once at least 500 Meters are installed in the field (out of total) and their two successful billing cycles have been performed by the SEPCO using the AMI Solution.
- h) If the bidder does not possess the prototype approval for the offered material according to relevant DDS and IEC standards (all amended to date), if applicable under WAPDA approved specification, the bidder shall have to obtain the prototype approval from the office of Chief Engineer (S&S), Lahore before start of mass production. Drawing and prototype samples for prototype testing shall be submitted to Chief Engineer (S&S) NTDC Lahore within 30 days from the date of issuance of purchase order. Delay in offering the prototype beyond 30 days will be considered as delay in delivery and same late delivery charges will be applicable as for delay in supply of goods.
- i) All expenses of testing charges will have to be borne by the manufacturer. Any change suggested during prototype testing for compliance of specification shall have to be incorporated without any extra price or claim. If the prototype sample fails, the material shall be improved and re-offered for prototype testing to Chief Engineer (S&S) NTDC, Lahore. The time taken for improvement in samples and resubmission of drawings will not entitle the manufacturer to claim extension in delivery period on this account.
If prototype fails second time, the firm will be considered Non-Responsive and Performance Guarantee will be forfeited in favour of SEPCO.
- j) The supplied AMR meters will expose data and services as per specifications laid down in UDIL only. The meter will be created in respective vendors' driver software to expose data and services in compliance with UDIL document. All necessary features for billing and instantaneous data should be compliant in UDIL. Vendor's driver software will be hosted in PITC.
- k) The offered AMR meter should be equipped with minimum one battery along with super capacitor; the battery shall be of lithium thionyl chloride having minimum cumulative capacity of 1200 mAh for Single Phase AMR Meter. A Super capacitor will be required for RTC to maintain date & time. The meter shall be equipped with fixed long life battery to display reading during power supply failure/outages.
- l) The meter shall be capable to provide safeguard against the theft of energy through all possible means as required for Single Phase AMI Meters.
- m) Provision of facility for data retrieval/downloading of data in case of damage of meter P.T Circuit of LCD / Display wash or any other critical issue. In case of damage of meter (except complete burning of meter), the security of EEPROM must be ensured and data should be readable from EEPROM.
- n) Relevant support tools / Gadgets / software shall be provided to M&T offices for retrieving data in case of display off / retrieval from EEPROM. Provision of Read Only Software in CD/DVD along with essential accessories to relevant M&T offices of SEPCO for data download purposes shall also be made.
- o) "The successful bidder will ensure the appropriate security scheme implemented for whole network. SEPCO will acquire the TELCOs assistance as and when desired.
The bidder will be required to provide documents mentioning the mechanisms for security of data from Meter to MDC".
- p) The successful bidder will be responsible for provision of functionality of software in the meter, security of software programming and re-programming in the field and will provide necessary backup warranty and training to officers/officials of SEPCO as recommended in the relevant clauses of NTDC Specification DDS-65:2003. (All amended to date). The bidder will also provide documents mentioning the mechanism for implementing security of software programming.
Bidder will ensure that Date/Time of AMR Meter will be synchronize with that of MDC and MDC date/time will be synchronized with Network Time Protocol (NTP).



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- q) Data from EEPROM should be readable in case of damage of meter (except complete burning of meter / damage of EEPROM). The list of meters alongwith their password should be provided to Manager (M.M) for onward distribution to concerned offices.
- r) Bidder is bound to provide Read Only complete MDC access and he will certify the same alongwith Technical Bid.
- s) The successful bidder will also provide PC application for meter configuration and mapping along with training to personnel from SEPCO AMI Cell and M&T for meter configuration and testing prior to its installation in the field.
- t) Communication module used for Smart Energy Meters must be verified and approved by Pakistan Telecommunication Authority (PTA). It should be minimum 3G and must be downward compatible to 2G without changing the SIM. If communication fails on 3G, then the MODEM shall try to automatically connect on 2G and vice-versa.
- u) AMR meter will be unidirectional but programmable for bidirectional by using optical port. Moreover, meter readers should be able to record readings manually for whatever the reasons may be (communication issues) & in whatever the mode (unidirectional or bidirectional) meter is programmed, with ease & in accordance with printed name plate. Both Uni / Bi-directional billing quantities shall be printed on name plate of meter separately.
- v) Data consumption shall not exceed 32 MB per month in keep-alive mode.
- w) MDC must support SIM identification, installed in AMR Meter which should be identifiable through UDIL Service.
- x) The arrangement of hardware is the responsibility of SEPCO / PITC. Please suggest appropriate hardware for the proper functioning of the system.
- y) MDC must be capable to handle all number of awarded meters concurrently.
- z) MDC should be able to support retrieval of scheduled metering data as per programmed / configurable interval (e.g 30 Minutes) for AMR Meters. AMR Meters would be declared muted if the last successful read was before 48 hours. Number of such muted meters shall not be more than 2% at any point upto the warranty period within the system. MDC should be able to retrieve missing data from meters after restoration without compromising system performance also issues regarding error in data or missing data shall be treated as meter mute.
- aa) In case of number of muted meters exceeds more than 2% as pointed out by Incharge AMI Cell SEPCO / PITC, an investigation shall be conducted into the matter and reasons other than declared scheduled communication outage by the Network provider, transformer damages, scheduled load shedding, cable breakdowns and ERO etc., shall be on Bidder's liability. If it is observed that the muted meters ratio is more than 2%, the Supplier will be responsible to take remedial measures which include but not limited to replacement of such meters, up-gradation of software patches etc. or any other remedy proposed by the SEPCO. Such enquiries / investigations shall be conducted in liaison with PITC by R.M M&T SEPCO, DCM & XEN M&T of Concerned Circle & Vendor headed by Incharge AMI Cell SEPCO. The outcome of the investigation proceedings shall be binding upon the Vendor/SEPCO for taking remedial action and will be taken in view for the issuance of Project Completion / Acceptance Certificate by the Committee.
- bb) The successful bidder will be responsible to provide open interfaces for integration/incorporation of new technologies/ systems at later stages.
- cc) The successful bidder is required to configure meters during production for primary & secondary IPs, ports & Wakeup SIM numbers (which will be provided by SEPCO/PITC). By default, the AMR meters will be in "keep Alive" Mode and after energizing, these meters will be automatically connected with the MDC & provide required data as per UDIL specifications. Schedule activity will be initially twice a day, having a sampling rate interval of 30 minutes. However, the schedule as well as sampling rate must be configurable.
- dd) On demand reading should be retrieved and the response time of On Demand reading should not be more than two minute or any other frequency set by SEPCO.
- ee) In case of any missing scheduled activity, the AMR Meter must communicate any pending readings to the MDC immediately after restoration of supply/ elimination of communication error/ due to any reason/etc.



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- ff) In case of delay of retrieval of readings beyond two minutes, an investigation shall be conducted into the matter and reasons other than the transformer damages, scheduled load shedding, ERO / disconnection etc., shall be on Bidder's liability. The meters should communicate at Signal Strength of -95dBm to -105dBm. Vendors will get it tested also to the satisfaction of the SEPCO. If it is observed that the meter modem signal strength is lower than the one mentioned above, the Supplier will be responsible to replace / repair the meter under warranty. Retry Failure rate should not be more than 05 times. The Time out for each retry should not be more than 30 seconds.
- gg) The manufacturer is required to print necessary bar code (whose format should be approved by SEPCO) on two suitable places of the meter i.e. at front or any other side of body and on cartridge / packing box.
- hh) The MDM interface of PITC shall be used. In case of development of SEPCO's own MDM in future, the integration of supplied MDC will be carried out by the bidder within the warranty period of MDC.
- ii) MDC should comply (identify and report) all the tempering parameters of MDM, DDS and UDIL.
- jj) For Single Phase Smart AMR Energy Meters system should be capable to carry out command of remote disconnection / reconnection in case of unauthorized load extension on the basis pre-programmed instructions through MDC. Similarly, the system should be able to carry out command of remote disconnection / reconnection in case of default by consumer on the basis of pre-programmed instructions as well as manual command (individual consumer / Group consumers). Generalization of disconnection systems are as follows:
- a. **Disconnection due to Non-Payments:**
Meter shall accept disconnection/reconnection command by backend system remotely as and when required. In case of disconnection initiated by backend system, meter shall not reconnect until it will receive reconnection command from backend system.
 - b. **Disconnection due to Load Limiting / Exceeding Sanctioned Load:**
Minimum two different load thresholds against different tariffs (peak/off peak) shall be programmed to activate disconnection/reconnection automatically by the meter and time between disconnection and reconnection shall also be programmable. Meter shall have the capability to change load thresholds locally and remotely.
 - c. SEPCO shall have provision to enable and disable the feature (Remote disconnect/ reconnect for both scenarios) locally by meter software and remotely by head end system.
Further to this in case of disconnection command execution (Individual / bulk AMR meters(s)), the AMR meter(s) will execute the relay command and make the AMR meter(s) into "Keep Alive Mode" the same AMR meter will become into "Non-Keep Alive" mode after execution of (Individual / Bulk AMR meter(s)) reconnection command.
- Note:**
It is clarified that, improvements suggested by (S&S) NTDC vide draft amendments issued (letter No Z-184/137-56 dt: 17-01-2024) must be complied with for this tender.
- kk) The bidder will quote the prices including all taxes and duties and excluding 18% GST on FCS basis. The offered price shall not be escalated for any reason what so ever.
- ll) All procured AMI Meters will be installed by SEPCO under the supervision of authorized representative of successful vendor (In case of any malfunctioning).
- mm) The successful vender will depute authorized representative / supervisor in SEPCO as per following schedule till issuance of Tier-2 certificate:
- a) Remote support shall be provided till the warranty of the meters.
 - b) Initial field support and training to SEPCO Staff till installation of at least 100 Meters for troubleshooting purpose.
 - c) The field support shall be provided (if required) by SEPCO for any troubleshooting in the meter software / hardware which could not be handled by SEPCO Staff.
- nn) This shall conform to NTDC (S&S) Specification. However, "No SIM" prompt on LCD Screen if provided shall be appreciated.
- oo) The location / navigation feature of smart meter will not be required in this tender.
- pp) The last communication of AMR Meter with MDM may not be displayed on Meter LCD.
- qq) The voltages and AMPs of each phase shall also be recorded in load profile of Single Phase AMR Smart Energy Meters besides existing registers in channel 1 to 4 as per DDS, which can be downloaded through data retrieval software.



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- rr) Following activities are pre requisite for installation of AMI Meters by the successful bidder:
- (i) SIMs allocation to meters (M2M SIMs will be provided by SEPCO)
 - (ii) Meter configuration (Bidder's Responsibility).
 - (iii) Meter creation on respective vendors driver software.
 - (iv) Meter installation is SEPCO responsibility.
 - (v) Live communication testing (Bidder's Responsibility).
 - (vi) Data validation (Bidder's Responsibility).

NOTE: All input data will be provided by SEPCO wherever required.

ss) 02 No Gadgets will be provided by supplier alongwith Software Downloading Data.

tt) Any technical requirement related with Software / IT / Billing of AMI Meters raised or required by PITC / SEPCO in future will be fulfilled and responsibility of bidder.

uu) **Future Network Compatibility Clause:**

The offered AMI Smart Energy Meter shall be equipped with a PTA compliant 4G communication module with backward compatibility to 2G, as specified in the Bidding Documents.

In case 5G communication technology is officially deployed and approved by the competent authorities during the process of evaluation, approval, or award of contract, the successful bidder shall provide AMI Smart Energy Meters having 5G compatible communication capability, without any additional financial liability to the purchaser, provided such requirement is communicated before issuance of Purchase Order / Contract Agreement.

vv) **FAILURES AND TERMINATION:**

- A) If you fail to obtain the prototype approval as per Clause "g" of the special conditions.
- B) Fails to deliver the stores any or all of the Goods or any consignment thereof within specified delivery period in the contract or within any extension thereof granted by the Purchaser and installation in case of Single Phase AMR Smart Energy Meters, the purchaser shall be entitled at his option either:
 - i) To recover from your liquidated damages levied at the rate of two percent (2%) per month OR a fraction thereof subject to a maximum of ten (10%) of the purchase order price, except:
 - a) Where undelivered stores hold up use of other stores, liquidated damages shall be levied on the total value of P.O.
 - b) The recovery of liquidated damages mentioned above can be affected from any payment due to you from any unit of SEPCO/DISCO's/PITC/NTDC/WAPDA.
 - ii) To purchase from elsewhere without notice to you at your risk and cost, the stores not delivered without canceling the purchase order in respect of the consignment not yet due for delivery OR
 - iii) To cancel the procurement at your risk and cost in the event of event of action being taken under (i) or (ii) above, your 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.
- C) If during the course of execution of purchase order, you are black listed by WAPDA/NTDC /PITC/ SEPCO or any other DISCO under PPMC then SEPCO may proceed with all or any of the actions detailed below:
 - i) To allow the purchase order to run its course till completed in accordance with terms and conditions of the contract
 - ii) To stop further supplies with or without financial repercussions.
 - iii) To cancel the purchase order with or without reservation or rights.

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 part of the manufacturer / supplier in the arrangement of raw material;
 - ii. Defect or failure occurring to any machinery or equipment installed at contractor works during the currency of P.O.
- D) If the Supplier fails to perform any other obligation under the Contract.
- E) Termination for Insolvency:
The Purchaser may at any time terminate the Contract by giving Notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to



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the Purchaser

vv) FORFEITURE OF BID / PERFORMANCE BOND:

The contracting officer will have the right to blacklist / debar & forfeit the Bid / Performance Bond.

A) If the contractor:

- i) Fails to apply & obtain UDIL Certificate Tier-1 to PITC within stipulated time as per Clause “f” of Special Conditions & Clause 19.6 of IB in addition to all other relevant clauses of bidding documents.
- ii) Non approval of prototype sample as per Clause “g” of the special conditions.
- iii) Fails to supply the goods within the time specified;
- iv) Very delayed supply of material resulting in loss to purchaser
- v) Defective / bad quality material supplied.
- vi) Non replacement of defective material within the warranty period.
- vii) Non-Provision of back up services / support etc.
- viii) Refusal to provide testing facilities as per satisfaction of engineer(s)/inspector(s) as per NTDC Specifications.
- ix) Fails continuously to ship the inspected material in specified / extended time period
- x) Fails continuously to supply / provide / handover the shipping documents in specified / extended time period.
- xi) Commits any breach of contract.
- xii) Fails to account for the import license issued on account of the purchaser.
- xiii) Fails to account for the raw material secured by the contractor against any license or permit issued on account of the contracting officer.
- xiv) 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 purchase order.

- B)** For other reasons specified in purchase order by the contracting officer for forfeiting the security deposits. 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 reason, the contracting officer will have a right to forfeit other security deposits or to recover the same from any other security deposits made in favor of any other unit of DISCO/ PPMC / PITC/ GENCO/ NTDC / WAPDA / SEPCO or from any money due to the contractor from any unit of WAPDA /SEPCO / DISCO / PPMC / PITC / GENCO / NTDC.

DRAWINGS

**(As per Specification of WAPDA/NTDC/PEPCO/SEPCO/PITC)
(Amended to date)**

- i) DDS-65:2003 (Amended to date)
- ii) DDS-98:2011 (Amended to date)
- iii) DDS-110:2012 (Amended to date)
- iv) IEC-62055-31 (For Relay)
UDIL (Latest Version as time of issuance of LOI)



BIDDER SIGN STAMP

SECTION - VI

STANDARD FORMS

FOR

Single Stage Two Envelope Procedure



Form of Qualification Information

1. Individual Bidders or Individual Members of Joint Ventures

1.1 Constitution or legal status of Bidder: *[attach copy]*

Place of registration: *[insert]*

Principal place of business: *[insert]*

Power of attorney of the signatory of Bid: *[attach]*

1.2 Total annual volume of Services performed in 3 years, in PKR specified in the Bid Data Sheet: *[insert]*

1.3 Services performed as prime Supplier on the provision of Services of a similar nature and volume over the last 3 years. The values should be indicated in the same currency used for Item 1.2 above. Also, list details of work underway or committed, including the expected completion date.

Project Name and Country	Name of Purchasing Agency and Contact Person	Type of Services provided and year of completion	Value of Contract
(a)			
(b)			
(c)			
(d)			

1.4 Major items of Supplier's Equipment proposed for carrying out the Services. List all information requested below. Refer also to ITB 13.3(c).

Item of equipment	Description, make, and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
(a)			
(b)			
(c)			
(d)			

1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer also to ITB 13.3(d).

Position	Name	Years of experience (general)	Years of experience in proposed position
(a)			
(b)			

1.6 Proposed sub-contracts and firms involved. Refer to GCC 24.

Sections of the Services	Value of Sub-contract	Sub-contractor (Name and Address)	Experience in providing similar services
(a)			
(b)			

- 1.7 Financial reports for the last 3 years: balance sheets, profit and loss statements, auditors' reports, etc. List below and attach copies.
- 1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of support documents. We certify/confirm that we comply with eligibility requirements as per ITB 3 of the bidding documents.
- 1.9 Name, address, telephone, telex, e-mail, and facsimile numbers of banks that may provide references if contacted by SEPCO.
- 1.10 Information regarding any litigation, current or within the last 5 years, in which the Bidder is or has been involved.

Other party(ies)	Cause of dispute	Details of litigation award	Amount involved
a)			
b)			

- 1.11 Information regarding Occupation Health and Safety Policy and Safety Records of the Bidder. Attach valid certificates.
- 1.12 Statement of compliance with the requirements of ITB 3.4.
- 1.13 Proposed Program (service work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the bidding documents.

2. Joint Ventures

- 2.1 The information listed in 1.11 - 1.12 above shall be provided for each member of the joint venture.
- 2.2 The information in 1.13 above shall be provided for the joint venture.
- 2.3 Attach the power of attorney of the signatory(ies) of the Bid authorizing the signature of the Bid on behalf of the joint venture.
- 2.4 Attach the Contract among all members of the joint venture (and which is legally binding on all members), which shows that
- all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
 - one of the members will be nominated as being in-charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all members of the joint venture; and
 - the execution of the entire Contract, including payment, shall be done exclusively with the member in charge.

3. Additional Requirements

- 3.1 Bidders should provide any additional information required in the Bid Data Sheet and to fulfill the requirements of ITB 12.1, if applicable.

We, the undersigned declare that

- The information contained in and attached to this form is true and accurate as of the date of bid submission *Or [delete statement which does not apply]*
- The originally submitted pre-qualification information remains essentially correct as of date of submission

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Bidder: _____

Address: _____

Form of Bid

Bid /Tender No. _____

Date: _____

To

Manager
Material Management
SEPCO, Sukkur.

We, the undersigned, declare that:

Having examined the Bidding Documents including Addenda, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to deliver _____ in conformity with the said Bidding Documents for the sum of _____ or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We declare that our Bidding price did not involve agreements with other Bidders for the purpose of bid suppression.

The Arbitrator shall be appointed by mutual consent of both parties, after consultation between the contractor & procuring agency to act as the adjudicator in case of any arisen disputes in accordance with **BDS Clause 48**.

We undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we undertake to provide a Performance Security (Guarantee) in the form, in the amounts, and within the 15-days from the date of issue of Letter of Intent (LOI). Failure to provide the Performance Guarantee within the stipulated time, the delivery period shall start. The delayed period shall be deducted from the delivery schedule while issuing the Purchase Order.

We declare that as Bidder(s) we do not have a conflict of interest with reference to **ITB Clause 3.7**.

We agree to abide by this Bid for the Bid Validity Period specified in BDS 22, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

We are not participating, as Bidders, in more than one Bid in this Bidding process, other than alternative offers in accordance with the Bidding Documents.

Our firm, its affiliates or subsidiaries – including any subcontractors or suppliers for any part of the contract – has not been declared ineligible by the Government of Pakistan under Pakistan's laws or official regulations.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

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

We certify/confirm that we comply with the eligibility requirements as per **ITB Clause 3** of the Bidding Documents.

Dated this _____ day of _____ 20_____.

(Name)

[signature]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of _____

To Whom It May Concern:

- i. It is certified that General Conditions of Contract for purchases by PEPCO / WAPDA dated 12/08/1984 amended up to date and latest purchase procedure PPRA-2004 (amended to date) are acceptable / agreed.
- ii. Certificate that the material offered is in accordance with the latest WAPDA / PEPCO / Tender Specifications (amended to date).



PROFORMA SHOWING PERFORMANCE OF THE FIRM IN SEPCO / OTHER DISCOS
DURING LAST TWO FISCAL / CALENDAR YEARS

Note:-

Copy of 1st Page of Purchase order / LOI / Performance Certificate should be attached.

Name of Firm: _____

Name of DISCO	PO No. & Date	Description of Material	Qty: on Order	Delivery Schedule	Qty: Supplied to date	Date of Supply	Qty: Balance	Material Supplied		Remarks
								In time	Delay	

It is also certified that:

- i) Our firm is not in litigation with any formation of NTDC / WAPDA / DISCOs.
- ii) In case of any information found incorrect from the above, SEPCO reserve the right to cancel our tender or prequalification and registration without assigning any reason what so ever and all consequences at our cost.

BID SECURITY FORM

To: Chief Executive Officer SEPCO

Whereas [name of the Bidder] (hereinafter called "the Bidder") has submitted its Bid dated [date of submission of Bid] for the delivery of [name and/or description of the goods] (hereinafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE [Name of Financial Institution] of [name of country], having our registered office at [address of Financial Institution] (hereinafter called "the Bank"), are bound unto [name of SEPCO] (hereinafter called "SEPCO") in the sum of [amount] for which payment well and truly to be made to the said SEPCO, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this _____ day of _____ 20____.

The conditions of this obligation are:

1. If the Bid
 - (a) have withdrawn or modified our Bid during the period of Bid Validity specified in the Form of Bid;
 - (b) Disagreement to arithmetical correction made to the Bid price; or
 - (c) having been notified of the acceptance of our Bid by SEPCO during the period of Bid Validity, (i) failure to sign the contract if required by SEPCO to do so or (ii) fail or refuse to furnish the Performance Security or to comply with any other condition precedent to signing the contract specified in the Bidding Documents.
2. We undertake to pay to SEPCO up to the above amount upon receipt of its first written demand, without SEPCO having to substantiate its demand, provided that in its demand SEPCO states the amount claimed by it is due to it, owing to the occurrence of one or both of the conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to and including twenty-eight (28) days after the period of Bid Validity, and any demand in respect thereof should reach the Bank not later than the above date.

Name: _____ in the capacity of _____
signed

[Signature of the Bank]

Dated on _____

PERFORMANCE SECURITY (GUARANTEE) FORM

To: Chief Executive Officer SEPCO

WHEREAS *[name of Supplier]* (hereinafter called "the Supplier") has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated *[insert date]* to delivery *[description of goods and services]* (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a reputable bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the: *[insert date]*

Signature and seal of the Guarantors

[Name of bank or financial institution]

[Address]

[Date]

INTEGRITY PACT

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS.10.00 MILLION OR MORE

Contract Number: _____

Date: _____

Contract Title: _____

Contract Value: _____

[Name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing [Name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fee 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 affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultations fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[Name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representative or warranty.

[Name of Supplier] accepts full responsibility and strict liability for making and false declaration, not making full disclosure, misrepresenting fact or taking any action likely to defeat the purpose of this 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 right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

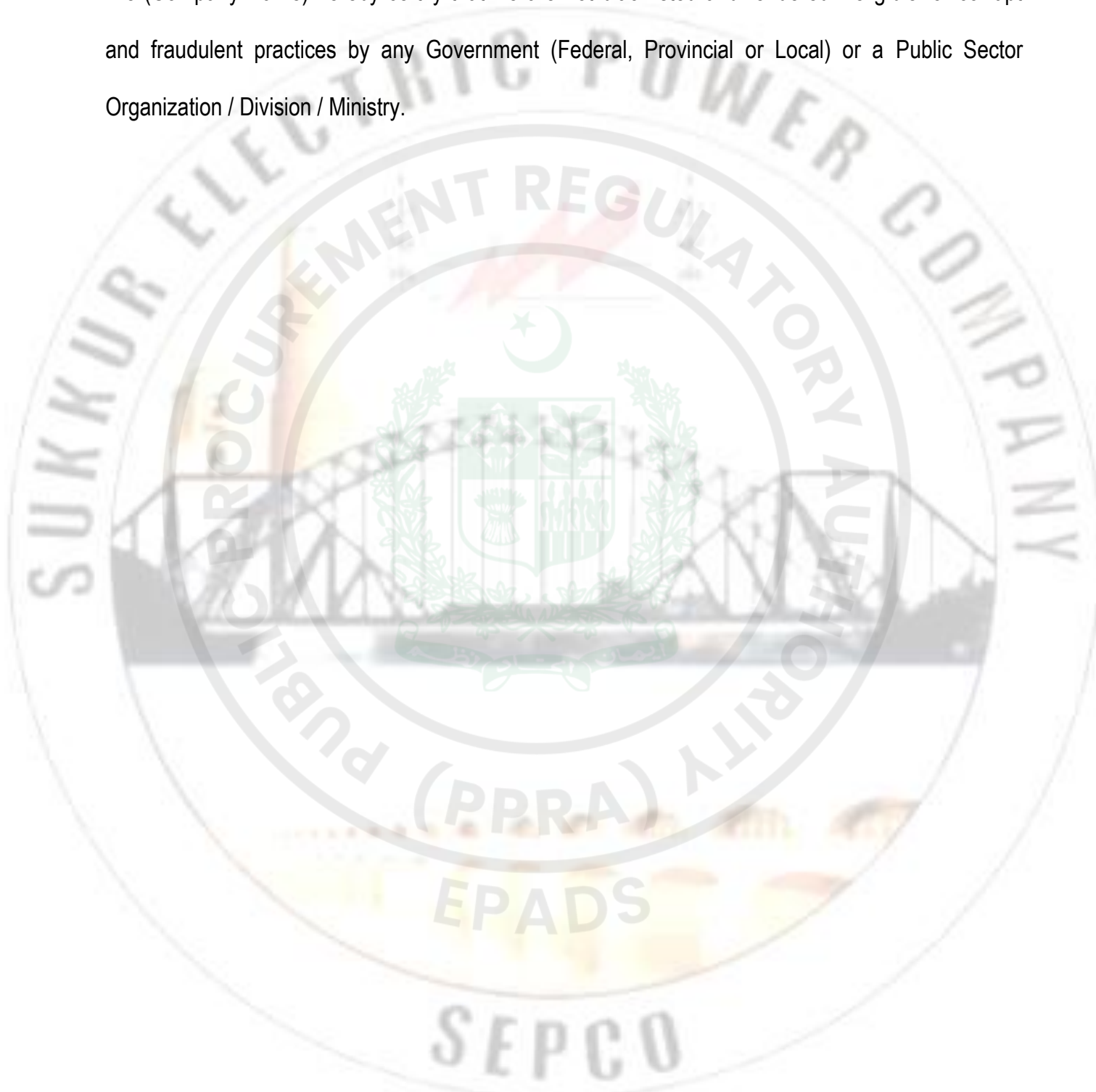
Notwithstanding any rights and remedies exercised by GoP in this regard, [Name of Supplier] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten time the sum of any commission, gratification,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

Buyer

Seller

To Whom It May Concern

We (Company Name) hereby certify that we are not blacklisted and rendered ineligible for corrupt and fraudulent practices by any Government (Federal, Provincial or Local) or a Public Sector Organization / Division / Ministry.



NON / INVOLVEMENT LITIGATION CERTIFICATE

It is certified that M/s. _____
 is not involved in the litigation in any court of law against Sukkur Electric Power Company (SEPCO) and other DISCOs / any formation of WAPDA till date.

If the firm (M/s. _____) is involved in any litigation against above organizations then provide one page brief alongwith following information on the prescribed proforma.

Name of DISCO / Formation	P.O / W.O	Dated	Item	Amount Involved (Rs.)		Reason for Litigation	Current Status with Attested Copies of the evidences (Under Process / Resolved / Stay Order / Arbitrations)
				Pending or Threatened	Resolved		

Net worth of the Firm ending latest fiscal year = _____
 (Alongwith proof / documentary evidences of required net worth). Bank statement and FBR statement must be attached.

%age of pending or threatened litigation with respect to Net worth _____

In case of any information found incorrect from the above, SEPCO reserve the right to cancel our tender or prequalification and registration without assigning any reason what so ever and all consequences at our cost.

Manufacturer's Authorization

(This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its Bid, if so indicated in the BDS.)

Date: [insert date of Bid submission]
Tender No.:

To: [insert complete name of Procuring Agency]

WHEREAS

We [insert complete name of Manufacturer], who are official manufacturers of (insert type of goods manufactured), having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a Bid the purpose of which is to provide the following Goods, manufactured by us insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: (insert complete name(s) of authorized representative (s) of the Manufacturer]

Title: [insert title]

Dated on _____ day of _____ [insert date of signing]

ww) Documents & Certificates to be submitted with the relevant Bid for Responsiveness of the Bid

S. No.	Description	Document attached Tick "Yes/No"
1	Certificate that General Conditions of Contract for purchases by PEPCO / WAPDA dated 12/08/1984 amended up to date and latest purchase procedure PPRA-2004 (amended to date) are acceptable to the bidder and are hereby agreed to by the bidder.	
2	The amount of Fixed Bid Security of tender (or as applicable if specified in the special condition above) issued by a Scheduled Bank of Pakistan has been attached alongwith bidding documents.	
3	Certificate that the material offered is in accordance with the PEPCO / Tender Specifications amended to date.	
4	Copy of letter of Prequalification for the material quoted in tender with DISCOs under relevant category of material.	
5	Copy of Letter of Registration with PEPCO/ DISCOs under relevant category of material.	
6	Technical data of the quoted items along-with PEPCO Standard Specification.	
7	Literature in English giving out salient feature of the quoted items.	
8	Copy of valid Prototype approval from Chief Engineer (S&S) NTDC, if applicable.	
9	Declaration of fees, commission and brokerage etc. payable by the suppliers of goods, services and works in contracts worth Rs: 10 Million or More.	
10	Satisfactory field performance of the firm against Educational /Regular PO (or as mentioned 2 and above) on the Proforma attached.	
11	Copy of certificate of registration with Sales Tax Department along-with necessary undertaking that the name of your firm exists on active tax payer list of FBR.	
12	Schedule of Technical Deviations (if any)	
13	Schedule of Contractual Deviations (if any)	
14	Certificate that the firm is not involved in litigation against SEPCO / DISCOs / Any Other WAPDA Formation.	
15	The bidder must be attached a Declaration of Beneficial Owner's Information of Public Procurement Contract Awarded Regulations 2022 on the prescribed Proforma attached for all procurement contracts worth Rs.50-Million and above.	
16	Bank Annual turnover certificate along of last three years (03)	
17	Providing last three years Bank Statement + Auditor Reports	

Note: All above certificates / documents should be attached / signed / properly filled by the firm with submitted Bid. Any document missed or instructions not complied with will lead to non-responsiveness of bid.

Signature of Bidder _____

M/s _____

PAKISTAN ELECTRIC POWER COMPANY
(PEPCO)

SPECIFICATION DDS-98:2011



SPECIFICATION FOR ADVANCED METERING
INFRASTRUCTURE (AMI)

(PPRA)

EPADS

SERVICES DIVISION (NTDC) DESIGN & STANDARDS
DEPARTMENT

Sr. No.	Description	Page
	Title page	
	Index of page	
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1	Scope	1
2	Definitions	1
3	Network Architecture	2
4	RTU Specification	2
5	GSM/GPRS Modem/Module Specification	2-3
6	Relay/Contactor Specification	3
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8	DCU Specification	4
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15	Annex-III Testing SOP	8-13

EPADS



NATIONAL TRANSMISSION & DESPATCH COMPANY

Office of Chief Engineer (Design & Standards) NTDC

48-L Model Town Extension, Lahore.

Ph No.042/99230024, Fax No.042/99230025

Email: cedengg@yahoo.com.

No. 3871-87 CEDSI/2-262

Dated: 15-08-2012

Chief Executive Officers,
All DISCOs

Subject: - AMENDMENT NO.1 DATED 09.07.2012 IN THE ADVANCED METERING INFRASTRUCTURE (AMI) SPECIFICATION NO. DDS-98:2011.

Enclosed please find herewith copy of Specifications No. DDS-98:2011 for Advanced Metering Infrastructure (AMI) for your information and record please.

DA/As above.

Zubair
(ZUBAIR MALIK)

Chief Engineer (D&S) NTDC

Cc to:-

1. General Manager (Services Division) NTDC, Wapda House, Lahore
2. Chief Engineer (Material Inspection) NTDC, Sunny View, Lahore.
3. All Meter manufacturers.

M/s-Micro Tech

(PPRA)
EPADS

SPECIFICATION NO. DDS-98:2011

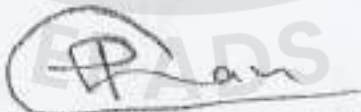
SPECIFICATION FOR
ADVANCE METERING INFRASTRUCTURE (AMI)

AMENDMENT NO. 1

DATED 9TH JULY, 2012

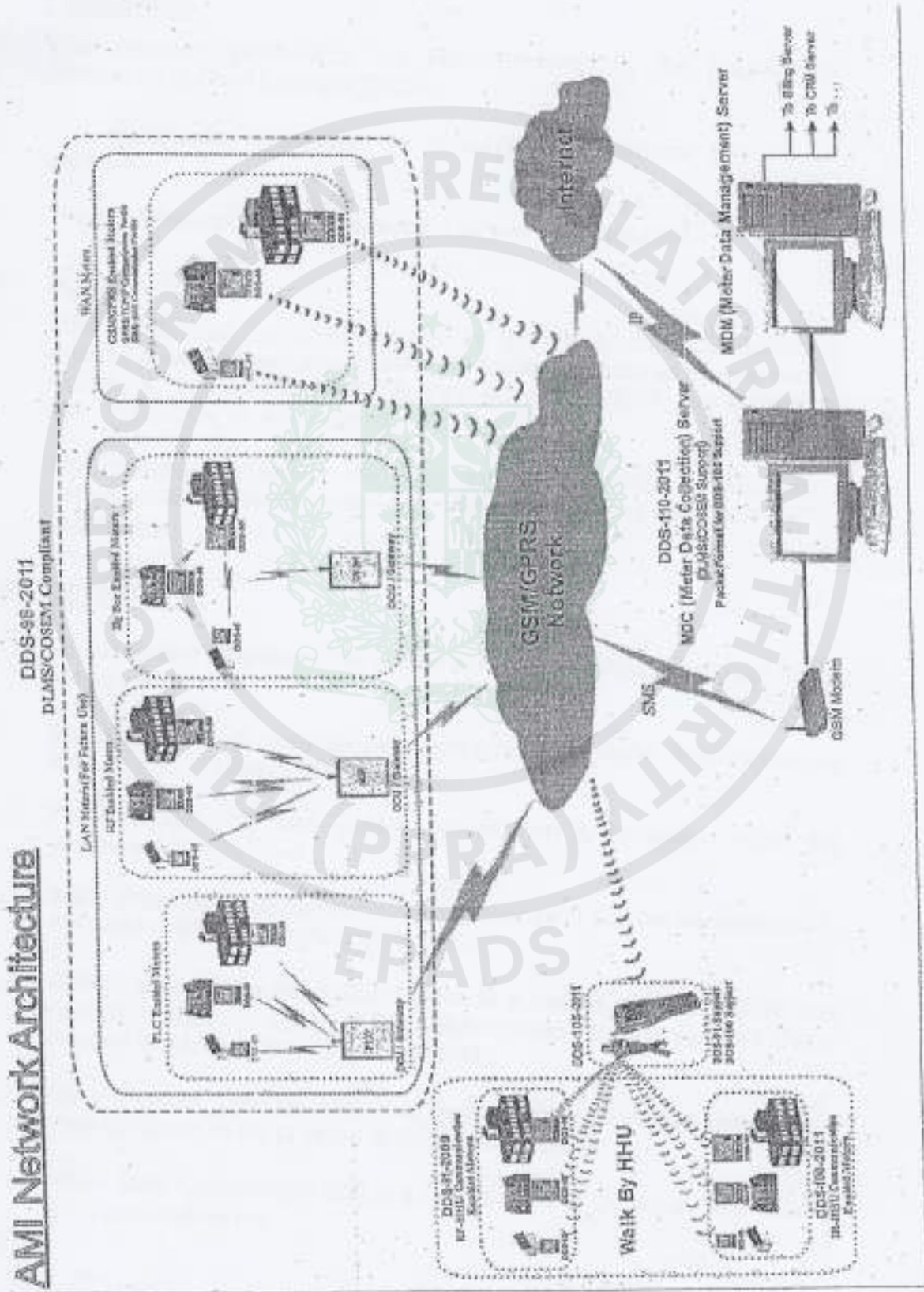
1. **Amend clause 6.1 as under:-**
Relay/Contractor must have the capability of connect and disconnect the consumer output phase lines simultaneously in case of over loading and non-payment.
2. **Amend clause 7.1 as under:-**
Refer to DDS-110:2012 MDC specification.
3. **Amend clause 7.4 as under:-**
Refer to DDS-110:2012 MDC specification.
4. Replace Annexure-I with AMI Network Architecture (Attached).


(ASHFAQ AHMAD)
DY. MANAGER (DE)


(DR. RANA ABDUL JABBAR KHAN)
MANAGER (DE)


(ZUBAIR MALIK)
CHIEF ENGINEER (D&S)

4. Network Architecture:



LA

SPECIFICATION FOR ADVANCED METERING INFRASTRUCTURE (AMI)

0.0 FOREWARD:

- 0.1 This standard specification has been prepared by the Engineering Directorate of Chief Engineer (D&S).
- 0.2 This specification is intended for procurement of material and not for contract.
- 0.3 This specification is subject to revision as and when required.

1.0 SCOPE:

- 1.1 This specification has been prepared for the introduction of GSM/GPRS enabled energy meters and GSM/GPRS Modem/Module as integral part of meters of specifications DDS-50, DDS-60 and DDS-65 that should be used in DISCOs for AMI system.
- 1.2 This specification covers the aspects of GSM/GPRS communication between AMR enabled meters and AMR server using SMS and GPRS technology.

2.0 DEFINITIONS:

- 2.1 **Manufacturer Identifier:** The unique numeric identification of each meter manufacturer.
- 2.2 **Meter Type:** Each separate meter product of the meter manufacturer is identified using Meter Type.
- 2.3 **Payload:** Metering data GSM communication is composed within the structure called Payload.
- 2.4 **SMS:** Short Message Service is a communication service standardized in the GSM mobile communication system.
- 2.5 **GPRS:** General Packet Radio Service is a packet oriented mobile data service available to users of the cellular communication systems Global System for Mobile Communication (GSM).
- 2.6 **RTU:** Remote Terminal Unit is a device, which interfaces telemetering data of objects in the physical world to central server.
- 2.7 **DCU:** Data Concentrator Unit is a device used to Communicate between RTU and AMI server.

3.0 NETWORK ARCHITECTURE:

Proposed Network Diagram is given in Annexure -I

4.0 RTU (Remote Terminal Unit) SPECIFICATION:

4.1 METERS:

- 4.1.1 Meters to be supplied by the vendors should comply with their respective WAPDA standards viz. DDS-50:2007, DDS-60:2007 and DDS-65:2003 (amended to date).
- 4.1.2 The meters should have built-in communication device i.e. GSM/GPRS Modem/Module for direct communication to server over SMS and GPRS.
- 4.1.3 Meters should be capable of generating the query response originated by the host system/server.
- 4.1.4 Meters should be capable of sending data to the host system at a preprogrammed interval and two (2) IP addresses should be programmed in the GSM/GPRS module and three (3) number of SIMS (GSM subscriber) should be programmed for communication with the meter and meter can only be communicated through these SIMS for downloading data.
- 4.1.5 Meter should send data to the host system with time and date stamp when alerts/events generated inside the meter including the CT fail or CT bypass.
- 4.1.6 Meter time should be synchronized to Host Server from time to time automatically.
- 4.1.7 The meter should be multi vendor compliant and the protocols to be used for communication following international standards DLMS/COSEM.
- 4.1.8 Load profile and Event Data should be in the format as defined in the meter reporting software of relevant specifications.
- 4.1.9 Load limit device (Relay/Contactor) may be provided as per demand in the meters to operate from server automatically if load exceeds than the predefined load limit.

5.0 GSM/GPRS MODEM/MODULE SPECIFICATION:

- 5.1 The GSM/GPRS Modem and antenna shall be integral part of the meter.
- 5.2 Quad-Band GSM/GPRS 850/900/1800/1900MHz.
- 5.3 Compliant to GSM phase 2/2+

Class 4 (2W @ 850/900MHz)

Class 1(1W @ 1800/1900MHz)

LA

- 5.4 The Modem shall have the capability for SMS and GPRS communication.
- 5.5 The modem shall have single LED in the front, which should be visible from the distance.
- 5.6 The LED shall indicate the operational status of the modem like:
- i) Fast blinking LED indicates absence of SIM card or no network service or insufficient signal strength.
 - ii) OFF LED indicates modem is not working.
 - iii) Slow blinking LED indicates healthiness of the modem and is registered to the GSM network.
 - iv) Data communication indication should be provided on LCD.
- 5.7 SIM card shall be field replaceable.

6.0 RELAY/CONTACTOR SPECIFICATION:

- 6.1 Relay/Contactor must have the capability of connect and disconnect the consumer output for each phase in case of over loading and non payment.
- 6.2 Relay/Contactor should be able to reconnect after preprogrammed time interval and keep connected within preprogrammed threshold otherwise disconnected.
- 6.3 Consumer load threshold for disconnection and number of retries should be programmable.
- 6.4 Relay/Contactor should be operated remotely form server.

7.0 AMR SERVER/ HOST SOFTWARE:

- 7.1 AMR Server/Host Software must be DLMS/COSEM compliant and the host software should be capable to provide all metering data mentioned in meter reporting software in relevant WAPDA/PEPCO specifications.
- 7.2 The host software shall provide GUI (Graphical User Interface) for users to initiate data queries and receive responses.
- 7.3 The host software must have capabilities to store and report all metering data in a database management system as required in the relevant meter specifications reporting software like billing data, event data, load profiles etc.
- 7.4 The database shall have redundant hard drives and there should be at least one mirroring server.
- 7.5 The database server should have backup interface for CD/DVD.
- 7.6 The billing interface will generate billing data to be used in DISCO's customer information and billing system in the form of .csv format.

8.0 DCU Specification:

DCU Specification is given in Annexure-II

9.0 TESTING SOP:

Testing Method of GSM/GPRS enabled meters is given in Annexure-III.

10.0 SAMPLE:

The sample requirement is as per relevant meter specifications.

11.0 PROTOTYPE:

The prototype requirement is as per relevant meter specifications.

12.0 TESTING AND INSPECTION:

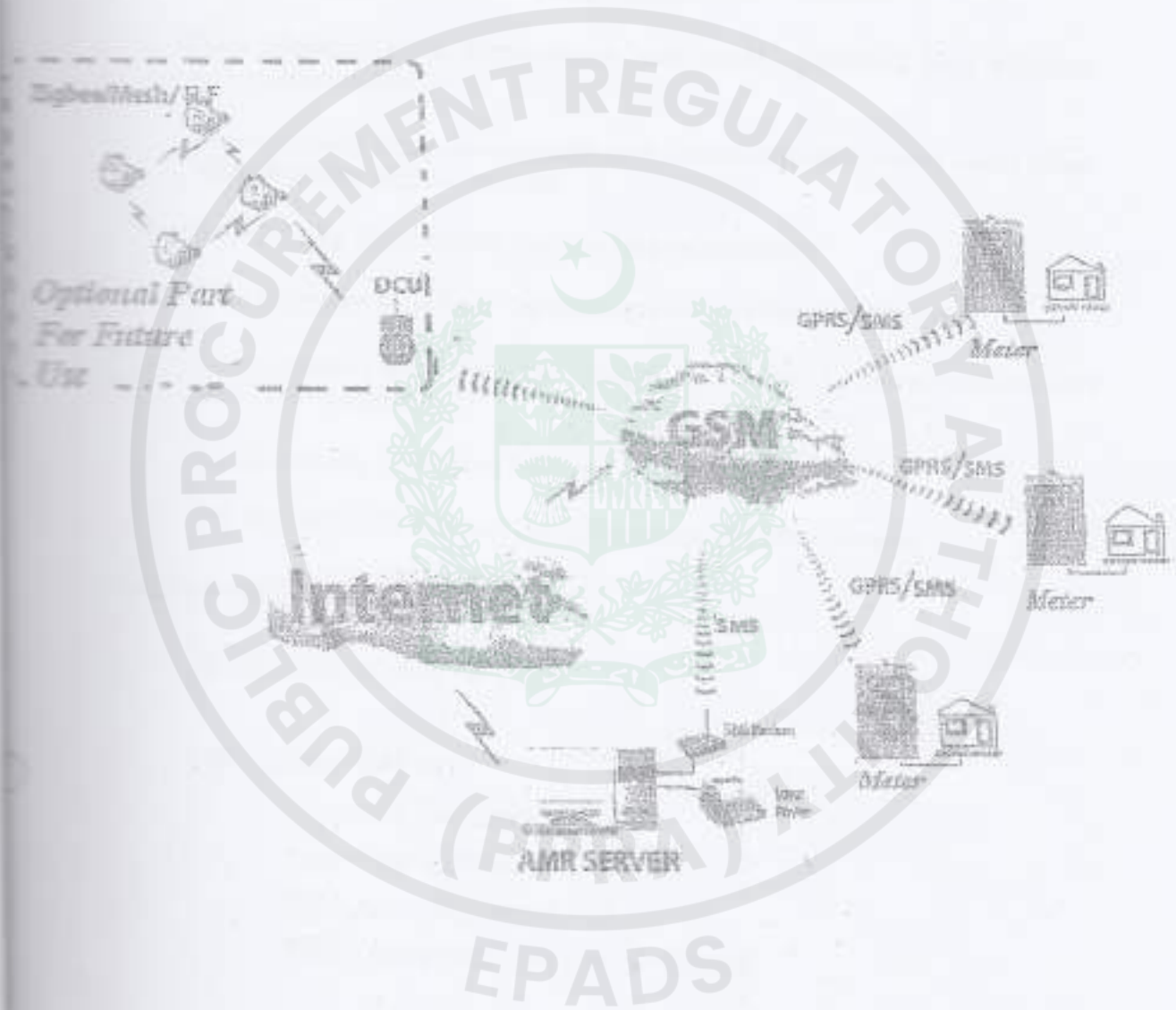
Inspection requirement is as per relevant meter specifications in addition to verification of GSM/GPRS features.

 (ASHFAQ AHMAD) DT: MANAGER (DIST. ENGG.)	 16-03-11 (DR. RANA ABUL JABBAR KHAN) MANAGER (DIST. ENGG.)	 (INAYAT HUSSAIN) CHIEF ENGINEER (D&S)
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(PPRA)
EPADS

Annex-I

Network Architecture



Annex-II DCU Specification

Data Gateway for LAN/WAN Enabled Meters

Data Gateway shall act as a gateway/bridge between the WAN connected host software and LAN connected meters.

Data Gateway shall communicate with WAN connected host software using GSM/GPRS.

Data Gateway shall communicate with LAN connected meters using either RF433MHz or ZigBee protocol.

SIM Card for GSM/GPRS shall be field replaceable.

Data Gateway shall have minimum capacity to handle 100 nodes.

Data Gateway shall have the required capability of storing relevant LAN and WAN addresses.

Data Gateway shall have following I/O ports:

RS 485/RS 232/USB port for configuration of Data Gateway

Communication Interfaces:

GSM/GPRS Module for WAN

RF 433MHz for LAN

Operating Frequency: 433 MHz

Data Rate: 4.8Kbps

Modulation Technique: FSK

RSSI: Better than or equal to -100dBm

ZigBee for LAN:

Operating Frequency: ISM 2.4 GHz

Network Technology: Mesh

Technical characteristics of DCU shall be as under:

Power Supply:

3 Phase 4 wire 3x230/400VAC at 50Hz should also be operational on 2 wire.

IP Code (Environmental Protection):

Protection against penetration of dust & water: IP54

Operating Temperature:

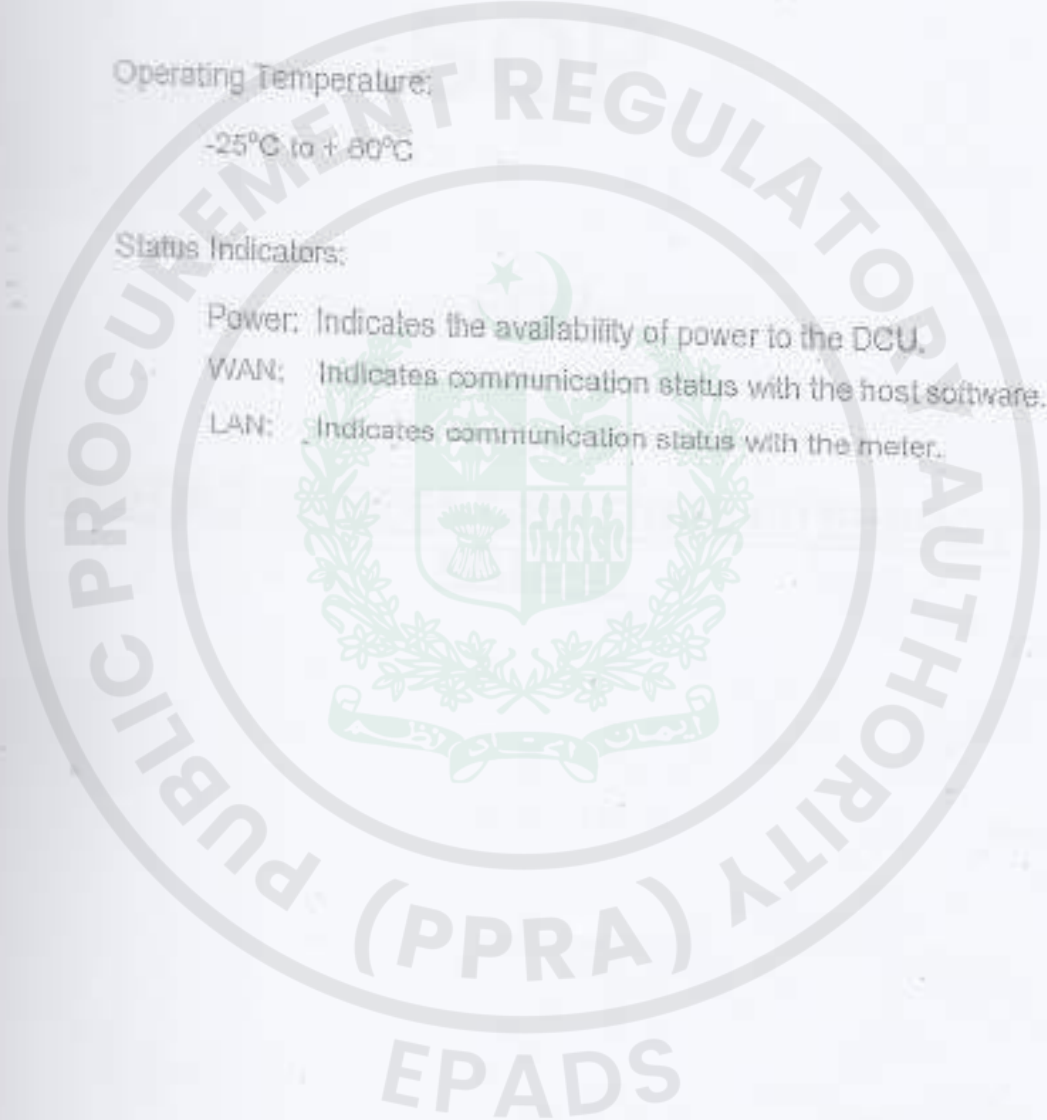
-25°C to + 60°C

Status Indicators:

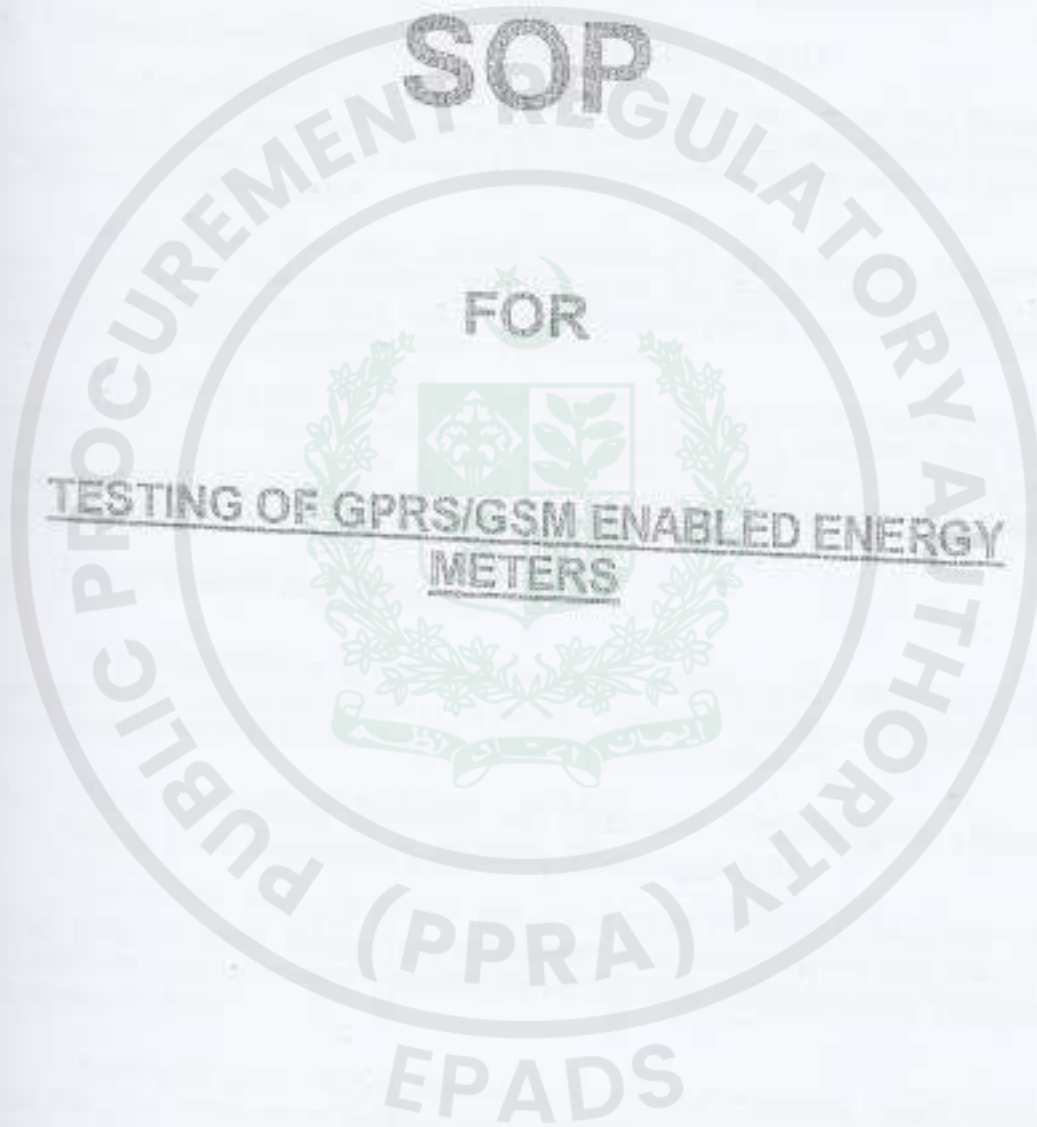
Power: Indicates the availability of power to the DCU.

WAN: Indicates communication status with the host software.

LAN: Indicates communication status with the meter.



Annex-III



Additional Tests & Limits of Testing for GPRS/GSM Enabled Meters

GPRS Enabled Meters are generally considered as Electronic Meters with the additional functionality for remote communication in GSM/GPRS mode. There exist certain conditions in which the normal test procedure or limits already specified for metering need to be reviewed keeping in view the requirements of GSM/GPRS system.

This document addresses only the additional requirements for ensuring successful meter operation with GSM/GPRS module during communications.

1. Power Requirement (IEC 62053-61 Clause 4.3)

The specification of general electronic Meter addresses the Power Requirements of non-multi-functional and non-multi-energy Electronic Meters. But the GPRS/GSM modules attached in a GPRS/GSM enabled meters do have certain Power Requirements.

These requirements are properly addressed in IEC 62053-61. The user and manufacturer should consider that first of all, the meter is multi-energy as well as multi-functional. Also it has a Communication Device installed within the meter deriving energy from the Main's Power Supply.

The Power Loss of GPRS/GSM Enabled Meter may increase due to additional Load of GPRS/GSM Module in normal operating conditions and the VA burden may increase also. During Transmission/Reception of GPRS/GSM Data the power requirements increase. The total power loss should not exceed the values given in IEC 62053-61.

2. Low Voltage Application.

The Specification of general electronic meters also addresses the Voltage Limit Range of Operation as well as Specified Range of Operation. In case of GPRS/GSM Enabled Meters, this limit is also applicable.

3. Test Including Testing at Different Frequencies other than Line Frequency (CISPR 22 Clause 3.1)

The normal electronic meters are tested for its Immunity to EMC and for EMC Emission (both radiated and conducted). This testing cannot hold true for GPRS/GSM enabled meters because the GPRS/GSM enabled meters itself are Radiating Devices.

CISPR 22 which is the standard for Testing of Emissions clearly states that the ITEs (Information Technology Equipment) that have their own radiating devices built in are out of scope of this standard and therefore, National Radio Regulations have to be applied. Electricity Meters are not covered under the Pakistan Telecommunication Authority (PTA) regulations. Therefore, an FCC, USA/European Directives approval, certification, and test reports for the GSM/GPRS modules should be provided.

4. Extended Temperature Range

The meter shall fulfill the requirements set forth in the WAPDA specifications except for the test, for successful communication which shall be conducted within temperature range of -25°C to $+70^{\circ}\text{C}$.

5. EMC Requirements (IEC 62052-11)

All the EMC requirements and conditions specified and applicable on the normal Electronic Meter should also be applicable to the GPRS/GSM Enabled Meters accordingly.

6. All other Electrical Requirements (IEC 62053-21)

All other electrical requirements and conditions specified and applicable on the normal Electronic Meter shall also apply to the GPRS/GSM enabled meters accordingly.

Testing of GPRS/GSM Enabled Meters.

The Type-Tests performed on the meter generally fall in three categories.

1. The tests during which the meter is not energized:
 2. The tests during which the meter is energized but accuracy is not taken.
 3. The tests during which the meter is energized and accuracy is taken.
- Methods for testing the GPRS/GSM Capability of the Meter in each category is defined as under: -

Category 1

Tests during which meter is not energized.

Testing Methodology

The Type Tests in which meter is not energized, the meter should be checked for communication before and after application of tests. This is to ensure that the communication System of the meter is not effected by the application of test.

Application Methodology

To execute this schema, meter should be energized before application of the test and its communication is checked. Then the meter is de-energized and the required test is performed. After application of test and its success, the meter is again energized and its communication is verified.

Interpretation of Results

When the communication is confirmed, the meter is considered to be accepted.

List of Tests Under Category 1

Sr. No.	Test Name	Specification
	Tests Insulation Properties	As per Relevant Specifications
1	Impulse Voltage test for circuits and between circuits.	
2	AC Voltage Test (4kV)	
3	Insulation Resistance Test	
	Tests of the effect of the climatic	
4	Dry Heat Test	
5	Dry Test	
6	Solar Radiation Test	
	Mechanical Tests	
7	Spring Hammer Test	
8	Shock test	
9	Vibration Test	
10	Test of Penetration of Dust Particles	
11	Test of Penetration of Water	

Category 2

Tests during which Meter is Energized but Accuracy is not Taken.

Testing Methodology

This category addresses the Type Tests in which meter is energized with the voltage applied at the meter terminals and with or without current flowing through the meter but accuracy is not observed.

The meter undergoing the tests under this category should be checked for successful communication during application of the specified test. It should also comply with the test conditions and should not affect the result. This is to ensure that the communication of the meter is not affecting the meter in particular test conditions.

In cases where Temporary Loss of Function of meter is allowed, the same is applicable to the communication enabled meter. Example of such test is the Electrostatic Discharge Test.

Application Methodology

To execute this scheme, meter should be energized according to the test specification. The communication with the meter is performed during the application of Test conditions.

The meter communication shall be checked before and after application of the test conditions.

Interpretation of Results

If the meter communicates properly and the test results remain within the permissible limits during this communication then the meter is considered to comply with the test standard.

List of Tests Under Category 2

Sr.#	Test Name	Specification
	Test of Accuracy requirement	As per Relevant Specifications
1	Test of no-load condition	
2	Test of Starting Current	
	Tests of Electrical requirements	
3	Test of Power Consumption of Voltage Circuit	
4	Test of Power Consumption of Current Circuit	
5	Test of Effect of Voltage Dips & short Interruption)	
6	Test of Influence of Short Time Over Current	
7	Test of Temperature Rise of Terminals	
8	Immunity to Earth Fault	
	Tests of Electromagnetic Compatibility (EMC)	
9	Test of Immunity to Electrostatic Discharges	
	Tests of the effect of the climatic environments	
10	Damp Heat Cycle Test	
	Miscellaneous Requirements	
11	Voltage Limit Range of Operation	
12	Test of meter Operation / Recording	

Category 3

Tests during which meter is energized & accuracy is also taken.

Testing Methodology

This category addresses the Type Tests in which meter is energized with the voltage applied at the meter terminals as well as current flowing through the Meter to test the operation and accuracy of the meter under application of test conditions.

The meter undergoing the tests under this category should be checked for successful communication during application of the specified test. It should also comply with the test conditions and should not affect the accuracy results except within the permissible tolerance.

Application Methodology

To execute this scheme, meter should be energized according to the test specification. The communication with the meter is performed during the application of Test condition. Whenever possible, the meter shall be checked for communication during the test condition; otherwise it shall be checked before and after the test condition is applied.

Interpretation of Results

If the meter communicates properly and the accuracy results remain within the permissible limits during, before, and after (as applicable) then the meter is considered to comply with the test standard.

List of Tests Under Category 3

Sr.#	Test Name	Specification
	Test of Accuracy requirement	
1	Test of Accuracy	
2	Test of Meter Constant	
	Tests of Influence quantities	
3	Voltage Variation	
4	Frequency Variation	
5	Reverse Phase Sequence	
6	Voltage Unbalance	
7	Harmonic Content in current & voltage circuit	
8	Odd Harmonics in the current circuit	
9	Sub Harmonics in the AC Current	
10	Continuous magnetic induction of external origin	
11	Magnetic Induction of external origin 0.5mT	
12	Influence of Radar Magnet (0.5 Tesla)	
13	Test of Ambient Temperature influence	
14	Test of Temp at Extreme Condition (-25°C to +70°C)	
	Tests of Electromagnetic Compatibility (EMC)	
15	Fast Transient Burst Test	
16	Surge Immunity Test	
17	Test of Immunity to Electromagnetic RF Fields (Conducted Disturbance)	
18	Damp Oscillatory Waves Immunity Test	

As per Relevant Specifications

EPADS

SPECIFICATION NO. DDS-65:03

STATIC SINGLE PHASE 2 WIRE
ENERGY METERS WITH MULTIRATE TARIFF
OPTIONAL (CLASS-I)

AMENDMENT NO. 1

DATED 20th MARCH, 2004

Add following under clause 7 :-

- i. Existing clauses 7.1 to 7.4 will be applicable for multi rate meters.
- ii. Add new clause 7.5 below which will be applicable for single tariff meters.

7.5 BASIC DATA RECORDING

7.5.1 Static Watt Hour Meter

- Energy (Kwh)

7.5.2 Security Features

- Every meter shall have a unique Sr. No. in its memory which can be displayed.
- Meter shall be capable of recording energy accurately in the case of change of phase with the neutral wire.
- LED indication shall be provided for Kwh.
- Reverse energy flow indication shall be provided in the meter through LCD/LED.
- Meter shall record energy consumption in the absence of neutral wire as long as phase wire is connected to the phase terminal or the neutral terminal of meters. In this case energy recording shall start when minimum of 10% of basic current flows through the phase wire in such case the energy recording shall be based on current flowing through the meter with assumed voltage and power factor.

Meter shall be protected against external interference

mobile phones and shall comply to all relevant IEC/ANSI standards for functional performance and loss of data.

7.5.3 DISPLAY

- The display shall be LCD type with at least 5 whole digit for energy consumption.
- Display mod indicator
- Display quantity labels.
- Pulse output for field testing of meter.

 Deputy Director (D&S)	 Director (D&S)	 Chief Engineer (Distt. Engg.)
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SPECIFICATION NO. DDS-65:2003

STATIC SINGLE PHASE, 2-WIRE ENERGY METERS WITH MULTIRATE TARIFF OPTIONAL (CLASS-I)

AMENDMENT NO. 3

DATED 17th March, 2007

Add following clauses under INSPECTION

13.5 Inspection procedure for local manufacturers

13.5.1 ROUTINE TEST

Following routine tests shall be carried out by manufacturer on each meter and witnessed by the Inspector as per respective clauses of IEC 62053-21

Starting Current Test

Accuracy Test

If failure exceeds than 5%, the group offered for routine inspection be rejected -

13.5.2 SAMPLE TEST

The meters offered for acceptance shall be grouped into lots containing upto 500 meters. A sample comprising ten meters shall be selected at random from each lot and eight meters be subjected to electrical test and two meters for mechanical test.

(i) Sample Test (Electrical)

(a) Following tests be performed on each of two selected sample meters -

- Impulse Test
- Power Loss Test
- Influence Of Harmonics Test.
- DC and Even Harmonics Test
- A.C. Voltage Test

(b) Following tests be performed on each of four selected sample meters -

- Starting Current Test
- Running With No Load Test (Creep Test)
- Accuracy Test

(c) Following EMC tests be performed on each of two selected sample meters -

- Fast Transient Burst Test
- Surge Immunity Test
- Electrostatic Discharge Test

(ii) Sample Test (Mechanical)

(a) Following tests be performed on each of two meters already selected -

- Impact Test
- Tin coating Test

- (b) Following tests be performed on three meters selected randomly from offered lot. Dimensional check be performed on one meter and remaining two tests be performed on both the meters. -

Dimensional Check
Shock And Vibration Test
Rain Fall Test

13.5.1 ACCEPTANCE CRITERIA

a) Electrical Test -

- The lot shall be accepted if one meter fails in any one of the tests described in clause 13.5.2 (i)
- Re-sampling of the same size shall be carried out if -

One meter fails in any of the two tests

OR

Two meters fail in any one test

- The lot shall be rejected if:

Three or more meters fail in any of the test

OR

One meter fails in any three or more tests

OR

One meter fails in any two tests and one meter in one test

b) Mechanical Test

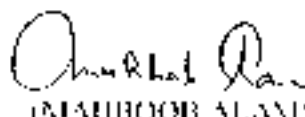
- The lot shall be accepted if meters qualify the above tests in clause 13.5.2 (ii) (a)
- In case any meter fails in the relevant test, another sample of double the size shall be selected and test be repeated!
- If any meter fails in any test during re-sampling, the entire lot shall be rejected

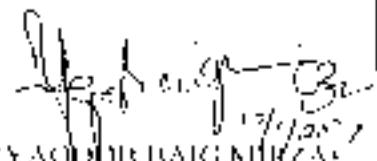
NOTE: Rejected lot can be re-offered for routine tests

13.6 VERIFICATION FUNCTIONALITY TEST OF SOFTWARE (Applicable In Case Of Multirate Meter)

13.6.1 Verification test of the functionality of software and display features on offered meters shall be performed by loading/down loading of and auditing of the reports. Copy of the report be retained for official record. The number of meters shall be two. If any meter fails to comply with the functionality requirements, the entire offered lot shall be rejected.


(MANSOOR MASRI)
DY. DIRECTOR (D&S)


(MANSOOR MASRI)
DIRECTOR (D&S)


(Yaqub Baig Mirza)
CHIEF ENGINEER (D&S)

SPECIFICATION NO. DDS-65:03

STATIC SINGLE PHASE 2 WIRE
ENERGY METERS WITH MULTIRATE TARIFF
OPTIONAL (CLASS-I)

AMENDMENT NO. 4

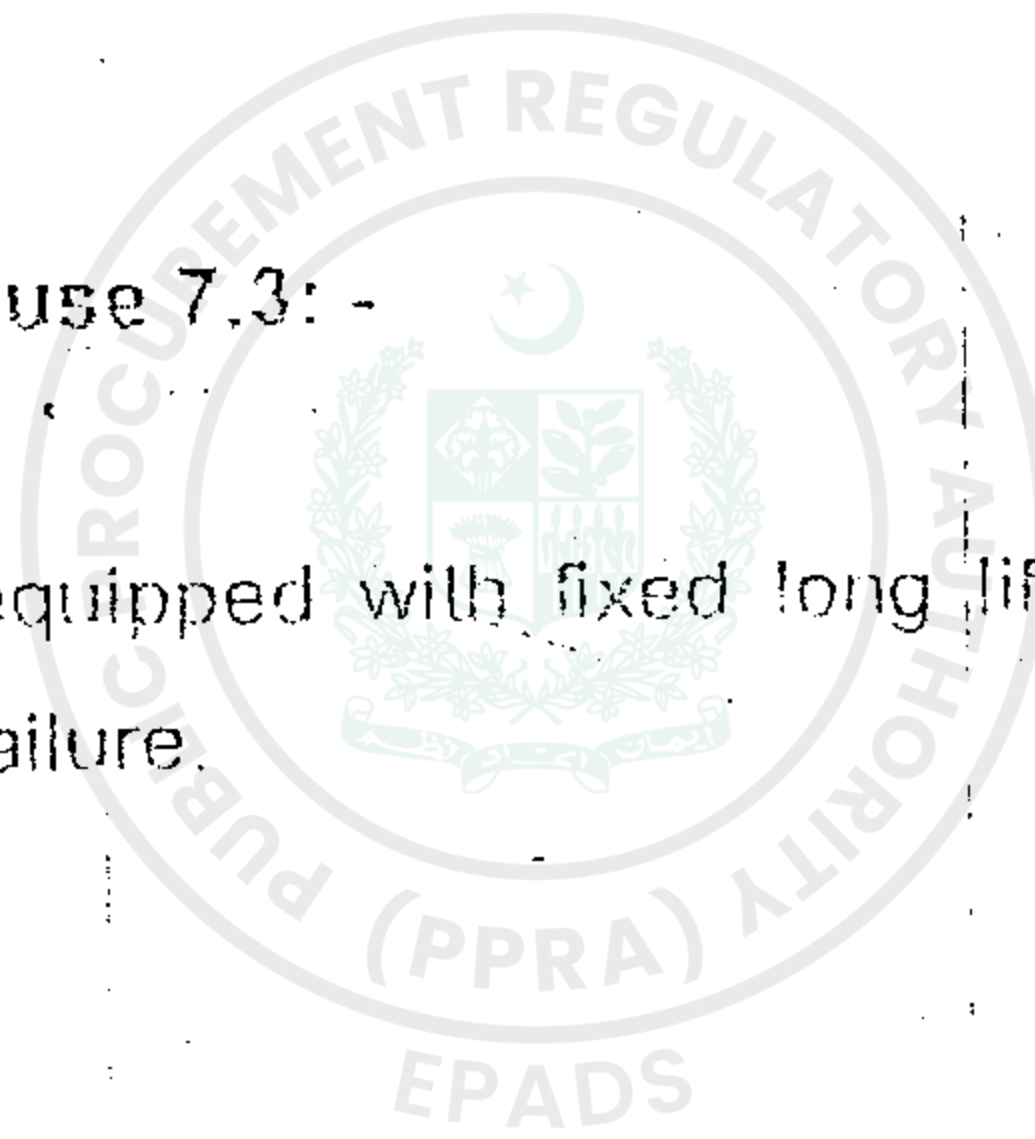
DATED 20th October 2007


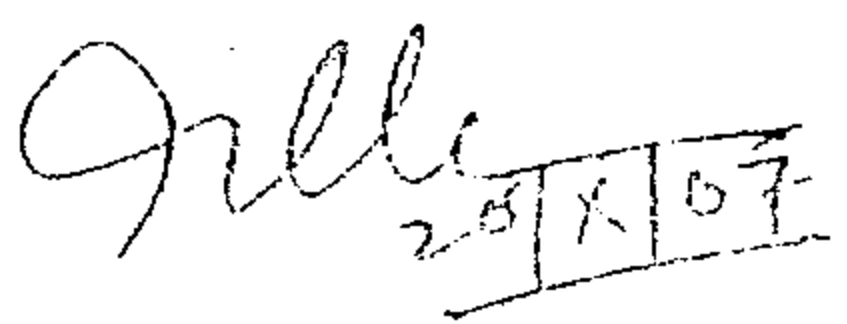
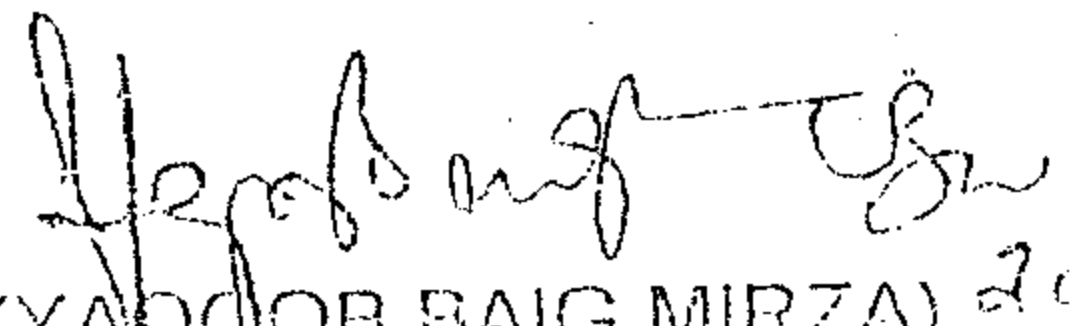
• Add following under clause 7.2.1: -

- The meter shall be properly shielded against the affects of strong magnetic field of 0.7 tesla.
- The meter shall be capable to provide safeguard against the theft of energy through dimmer.

• Add following under clause 7.3: -

- The meter shall be equipped with fixed long life battery to display reading during power supply failure.



 (MANSOOR NASIR) Deputy Director (D&S)	 20/10/07 (AZIZ UR REHMAN) Director (D&S)	 20/10/2007 (YAQOOB BAIG MIRZA) Chief Engineer (Design & Standards)
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SPECIFICATION NO. DDS-65:03

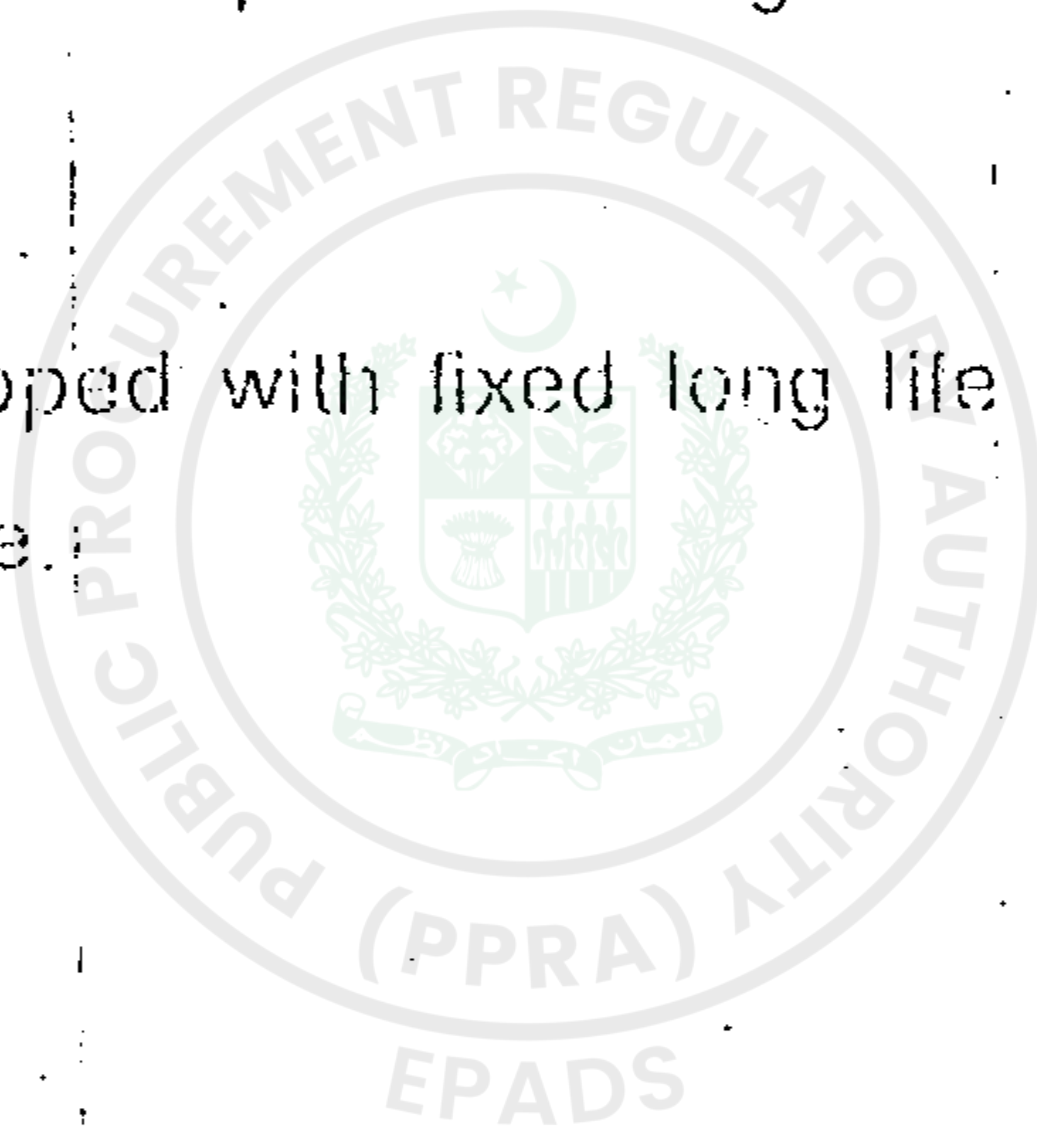
STATIC SINGLE PHASE 2 WIRE
ENERGY METERS WITH MULTIRATE TARIFF
OPTIONAL (CLASS-I)


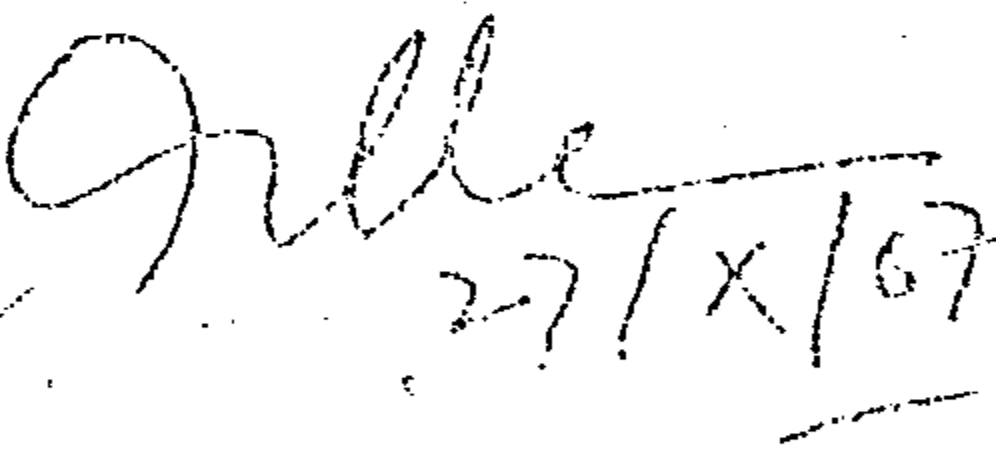

AMENDMENT NO. 5

DATED 27TH OCTOBER, 2007

• Add following under clause 7.5: -

- The meter shall be properly shielded against the affects of strong magnetic field of 0.7 tesla.
- The meter shall be capable to provide safeguard against the theft of energy through dimmer.
- The meter shall be equipped with fixed long life battery to display reading during power supply failure.



 <p>(MANSOOR NASIR) Deputy Director (D&S)</p>	 <p>27/X/07 (AZIZ UR REHMAN) Director (D&S)</p>	 <p>27/10/2007 (YAQOOB BAIG MIRZA) Chief Engineer (Design & Standards)</p>
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SPECIFICATION NO. DDS-65:2003

STATIC SINGLE PHASE, STATIC ENERGY METER

AMENDMENT NO. 6

DATED 05TH DECEMBER 2009

1. **The existing Sub Clause 13.4.2 shall be replaced as under:**

13.4.2 JOINT TYPE TESTING

Over and above normal inspection, the representative of Chief Engineer (Design & Standards) and Chief Engineer (MI) PEPCO will carry out all possible locally available type tests jointly, once during the calendar year and it shall be applicable during this period to all PEPCO/DISCOs purchase orders. The type testing will be carried out keeping in view that every time different DISCOs purchase order will be selected for the test. Chief Engineer (MI) PEPCO will communicate the schedule for joint type testing due well before time for a lot of reasonable size (not less 2000 meters).

2. **Add following new Sub Clauses**

13.4.3 TESTING CRITERIA

For joint type testing five (05) meters shall be selected jointly from the offered lot and all tests mentioned in the specification shall be performed.

- 13.4.4 Out of above five (05) samples, three (03) meters shall be subjected to following tests in sequence as mentioned in IEC 62052-11 Annexure-F:

- a) Tests of Insulation Properties;
- b) Test of Accuracy Requirements;
- c) Tests of Electrical Requirements;
- d) Tests of Electro Magnetic Compatibility (EMC), in house;
- e) Tests of the effect of the Climatic Environments.

Note: The manufacturer should enable the meter with three decimals while performing tests of EMC and voltage dips & short interruption.

- 13.4.5 One (01) meter out of three (03) meters be subjected to EMC test of RF Field to be performed at AWC Wah Cantt (or elsewhere approved by Chief Engineer (D&S):

- 13.4.6 Remaining two (02) meters out of five (05) shall be subjected to following tests: -

- f) Mechanical tests = One meter
- g) Miscellaneous requirement including verification of components and dimensions, = One meter

13.4.6 (a) If any one (01) meter fails in any test then double the quantity of samples shall be collected and all tests shall be repeated in sequence mentioned above. If any meter fails again in any test, whole lot shall be rejected.

(b) In case one (01) meter fails in two tests or two (02) meters fails in one test then whole lot shall be rejected.

13.4.7 In case of rejected lot, the manufacturer shall identify the cause of failure and re-offer the meters for joint inspection after rectifying the defect. Warranty of the meters already supplied during preceding months of the last joint type testing or prototype approval (whichever is earlier) shall be doubled.

3- The existing Clause 13.5.2 (Sample Test) shall be replaced as under: -

13.5.2 SAMPLE TEST

The meters offered for acceptance shall be grouped into lots containing up to 1000 meters. A sample comprising Ten (10) meters shall be selected at random from each lot and subjected to following tests: -

(i) Electrical

- | | | |
|----|---|----------------------------|
| 1- | Impulse Voltage Power loss & Influence of DC &] even harmonics test and AC voltage test] | = 02 Nos. |
| 2- | a) Test of accuracy requirement: | = 05 Nos. already selected |
| | b) Test of starting condition | |
| | c) Test of no load condition | |
| 3- | EMC tests | = 02 Nos. |
| | a) Fast transient burst test | |
| | b) Test of immunity to electro static discharges | |
| | c) Surge immunity test | |

(ii) Mechanical

- | | | |
|----|---|---|
| 1- | Shock & Vibration test | = 2 Nos. (Twice in P.O) |
| 2- | Test of protection against penetration of water and dust. | = Any 2 meters already selected |
| 3- | Dimensional check and verification of components | = Any 01 meter (against each inspection call) |
| 4- | Impact test and Tin coating test | = Any 01 meter already selected |
| 5- | Test of resistance to heat & fire. | = Any 01 meter already selected |

(iii) Verification for limit range of operation.

Following tests to be performed on one number meter already selected to verify the limit range and specified range of operation as per clause 4.2.1.

The selected meter will be subjected to uniform rate of increase of temperature, meter error shall be measured at unity power factor at interval short enough to allow a correct drawing to be made of the curve of error variation as a function of time. The same test shall be repeated for 0.5 lagging power factor.

(iv) Extreme Temperature Condition

Following test to be performed on one (01 No.) meter already selected:

- i. Test of Extreme Temperature condition:
- ii. Temperature = 80 °C
Duration = 04 hours

Meter shall be energized with reference voltage and I_{max} current continuously for four hours then the Accuracy of meter will be checked that will determine its qualification in test.

(v) Security Features Verification:

Following tests be performed on the meters already selected:

- i) Influence of magnet (0.7 Tesla) 2 Nos.
- ii) Dimmer Test 2 Nos.
(Once in Inspection call)
- iii) Single wire operation 2 Nos.

4- Acceptance Criteria.

- a) The existing Sub Clause 13.5.3 (a) shall remain the same

5- The existing clause 13.5.3 (b) shall be read as under:

- b) Mechanical Test, Limit Range of Operation, Extreme Temperature Condition and Security Features Verification:

- The lot shall be accepted if meters qualify the above tests in clause 13.5.2. In case any meter fails in the relevant test, another sample from the same lot of double the size shall be selected and test be repeated.
- If any meter fails in any test during re-sampling, the entire lot shall be rejected.

6- Add following new Sub Clause 13.5.4: -

13.5.4 Visual Inspection

The meter shall be inspected visually for, but not limited to, the defects mentioned below:

Examination	Defects
-------------	---------

Material:

1. The material used are not of good quality finish, contain surface defects or other imperfections injurious to the working of the meter.
2. The parts of terminal block e.g. terminals, pressure plates and terminals screws are not of specified material / quality.
3. Sealing screws are not made of steel.

Design and Construction:

1. The design or construction differs in any respect from that of the approved prototype.
2. Any part or components is missing, loose or damaged, effecting use or performance of the meter in any respect.
3. Clearance between various live parts and that between live and earthed metal parts is not sufficient.
4. The connections of leads to the potential coil are not soldered securely and show tendency to opening.
5. Sealing screws are not captive. If washers are used to keep them captive, they are not of proper design.
6. Sealing hook for the terminals is not of proper design, size or is found broken.
7. Gaskets are not of neoprene, not properly embedded, shows cracks, uneven thickness of surfaces.

Workmanship/Finishing/Marking

1. Meters are not uniform in quality, show scale, chips, dented or bent edges or other disfiguring / blemishes.
2. The terminal block is chipped at some places, shows signs of breakage, presence of weak points or other moulding defects.
3. Ultrasonic welding are not strong and smooth.
4. Joints are not in proper alignment, causing assembly defects of nature that interferes with normal working.
5. Nameplate markings are missing, incomplete, incorrect, illegible, not permanent, or not in accordance with relevant clause.
6. The connection diagrams and terminal marking are missing, incomplete, or applied in a temporary manners.
7. Polycarbonate cover is not clear transparent, not properly finished, deformed, shows burrs, extra material, cracks, cold shots, voids and air bubbles etc.

7- Add the following at the end of Clauses 8.2.5 and 13.5.2.

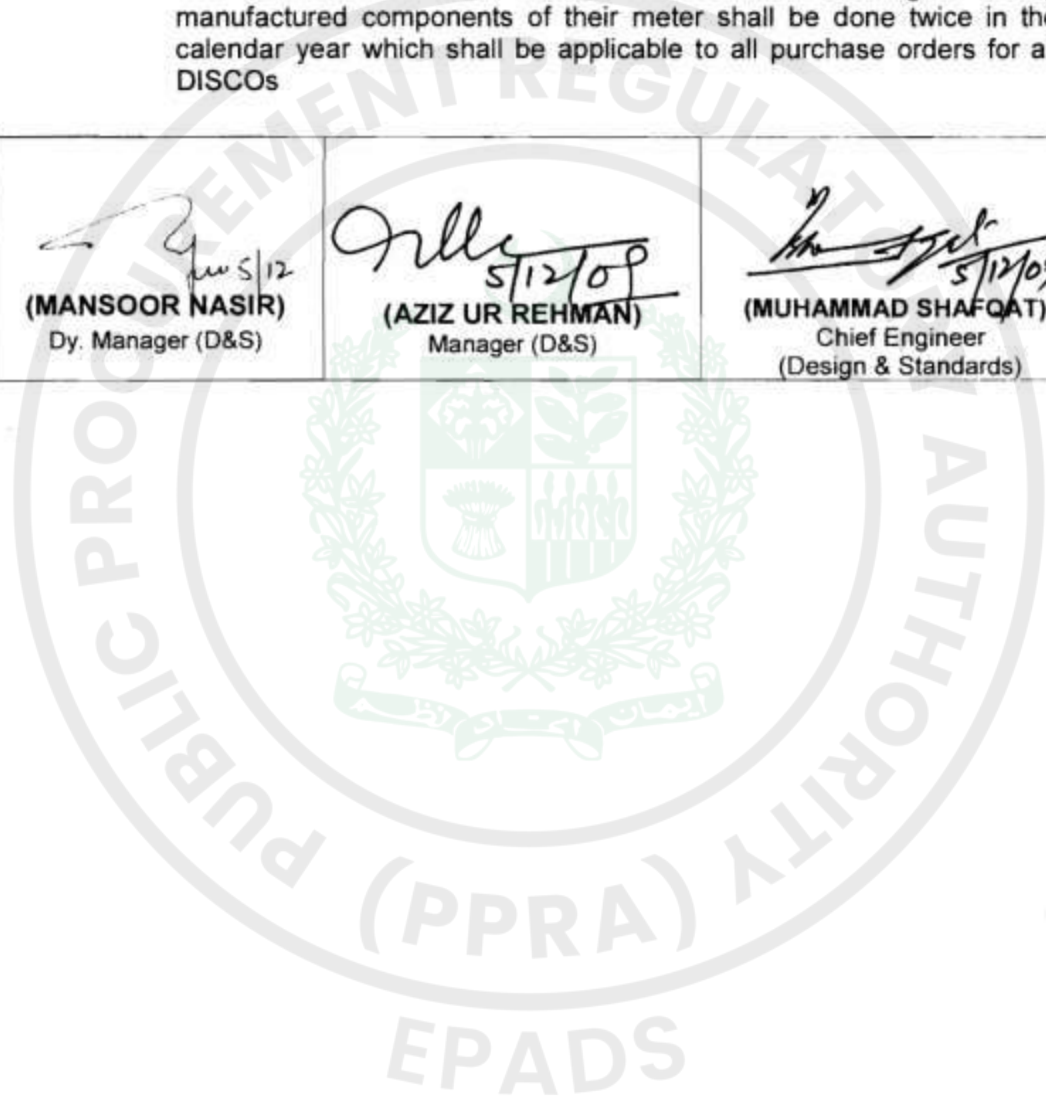
NOTE: *The manufacturer should provide UV Stabilized LCD Certificate from their principal at the time of prototype approval and during mass production.*

8- Add new clause 17 as under:

Clause 17. VERIFICATION OF LOCAL VENDORS

The verification of local vendors for the manufacturing of locally manufactured components of their meter shall be done twice in the calendar year which shall be applicable to all purchase orders for all DISCOs

 (MANSOOR NASIR) Dy. Manager (D&S)	 (AZIZ UR REHMAN) Manager (D&S)	 (MUHAMMAD SHAFQAT) Chief Engineer (Design & Standards)
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SPECIFICATION
DD-S-65:2003

STATIC SINGLE PHASE 2 WIRE ENERGY METERS with
MULTI-RATE TARIFF OPTIONAL

0 FOREWORD

- 0.1 This Specification has been prepared by the Standard, Directorate of Distribution Engg. Department of WAPDA.
- 0.2 This Specification is intended for the purpose of technical specification only for the procurement of material and does not include provisions of contract, unless otherwise provided in the contract.
- 0.3 This Specification is subject to-revision as and when required.

1.0 SCOPE

- 1.1 The Specification covers total Static Single Phase 2 Wire energy meters Class 1 capable of measuring kWh alongwith other quantities and built-in programmable features mentioned in this specification. The meter shall record and display all these quantities mentioned in the specification hereunder:
- 1.2 This Specification covers:
- 1) Static Single Phase 2 Wire, 240V, 10(40) Amp 50 Hz, Accuracy Class 1.0 Energy Meters.
 - 2) As above with additional Multi-Rate Tariff function.

2. REFERENCE STANDARDS

The Reference Standards are listed and provided in Annex - I.

3.0 DEFINITIONS

3.1 STATIC WATT-HOUR METER

Meter in which current and voltage act on solid state (electronic) elements to produce an output proportional to watt-hour.

3.2 MEASURING ELEMENT

Part of the meter which produces an output proportional to the energy.

3.3 TEST OUTPUT

Device which can be used for testing the meter.

3.4 OPERATION INDICATOR

Device which gives a visible signal of the operation of the meter.

3.5 MEMORY

Element which stores digital information.

3.6 NON-VOLATILE MEMORY

Memory which can retain information in the absence of power.

3.7 DISPLAY

Device which displays the content(s) of (a) memory (ies)

3.8 REGISTER

Electronic Device operating both memory and display which stores and displays information.

3.9 CURRENT CIRCUIT

Internal connection of the meter and part of the measuring element through which flows the current of the circuit which the meter is connected.

3.10 VOLTAGE CIRCUIT

Internal connection of the meter part of the measuring element and power supply for the meter supplied with the voltage of the circuit to which the meter is connected.

3.11 AUXILIARY CIRCUIT

Elements (lamps, contacts, etc.) and connections of an auxiliary device within the meter case intended to be connected to an external device, for example clock, relay, impulse counter.

3.12 CONSTANT

Value expressing the relation between the energy registered by the meter and the corresponding value of the test output. If this value is a number of pulses, the constant should be either pulses per kilowatt-hour (imp.kWh) or watt hours per pulse (Wh/imp).

3.13 INDOOR METER

Meter which can only be used with additional protection against environmental influences (mounted in a house, in a cabinet)

3.14 OUTDOOR METER

Meter which can be used without additional protection in an exposed environment.

3.15 BASE

Back of the meter by which it is generally fixed and to which are attached the measuring element, the terminals or the terminal block, and the cover.

3.16 COVER

Enclosure on the front of the meter, made either wholly of transparent material or opaque material provided with window(s) through which the operation indicator (if fitted) and the display can be read.

3.17 CASE

Comprises the base and the cover.

3.18 PROTECTIVE EARTH TERMINALS

Terminal connected to accessible conductive parts of the meter for safety purposes.

3.19 TERMINAL BLOCK

Support made of insulating material on which all or some of the terminals of the meter are grouped together.

3.20 TERMINAL COVER

Cover which covers the meter terminals and generally, the ends of the external wires or cables connected to the terminals.

3.21 CLEARANCE

Shortest distance measured in air between two conductive parts.

3.22 CREEP DISTANCE

Shortest distance measured over the surface of insulation between two conductive parts.

3.23 BASIC INSULATION

Insulation applied to live parts to provide basic protection against electric shock.

3.24 BASIC CURRENT (I_b)

Value of current in accordance with which the relevant performance of the meter is fixed.

3.25 MAXIMUM CURRENT (I_{max})

Highest value of current at which the meter purports to meet the accuracy requirements of this standard.

3.26 REFERENCE VOLTAGE (U_n)

Value of the voltage in accordance with which the relevant performance of the meter is fixed.

3.27 REFERENCE FREQUENCY

Value of the frequency in accordance with the relevant performance of the meter is fixed.

3.28 PERCENTAGE ERROR

Percentage error is given by the following formula :

$$\text{Percentage error} = \frac{\text{Energy registered by the meter} - \text{True Energy}}{\text{True Energy}} \times 100$$

Since the true value cannot be determined, it is approximated by a value with a stated uncertainty that can be traced to standards agreed upon between manufacturer and user or to national standards.

3.29 REFERENCE CONDITIONS

Appropriate set of influence quantities and performance characteristics, with reference values, their tolerances and reference ranges, with respect to which the intrinsic error is specified.

3.30 ELECTROMAGNETIC DISTURBANCE

Conducted or radiated electromagnetic interference which may effect functionally or meteorologically the operation of the meter.

3.31 RATED OPERATING CONDITIONS

Set of specified measuring ranges for performance characteristics and specified operating ranges for influence quantities, within which the variations of operating errors of a meter are specified and determined.

3.32 SPECIFIED OPERATING RANGE

Range of values of a Single influence quantity which forms a part of the rated operating conditions.

3.33 LIMIT RANGE OF OPERATION

Extreme conditions which an operating meter can withstand without damage and without degradation of its metrological characteristics when it is subsequently operated under its rated operating conditions.

3.34 STORAGE AND TRANSPORT CONDITIONS

Extreme conditions which a non-operating meter can withstand without damage and without degradation of its meteoric

3.35 NORMAL WORKING POSITION

Position of the meter defined by the manufacturer for normal service.

3.36 THERMAL STABILITY

Thermal stability is considered to be reached when the change in error as a consequence of thermal effects during 20 min. is less than 0.1 times the maximum permissible error for the measurement under consideration.

4. PERFORMANCE STANDARDS

4.1	i.	Reference Temperature	23 Degree C
	ii.	Reference Frequency	50 Hz
	iii.	Reference voltages	240 V

4.2 SERVICE CONDITIONS**4.2.1 Temperature Range**

Specified Operating Range -25 Degree C to 60 Degree C

Limit Range of Operation (extreme condition) -25 Degree C to 80 Degree C

Limit Range for Storage and Transport -25 Degree C to 80 Degree C

4.2.4 Relative humidity may range upto 95% non-condensing.

4.2.5 Altitude: Upto 1000 meter above level.

5. MECHANICAL REQUIREMENTS**5.1 GENERAL MECHANICAL REQUIREMENTS**

Meters shall be designed and constructed for Outdoor use in such a way as to avoid introducing any danger in normal use and under normal conditions, so as to ensure especially:-

- personal safety against electric shock.
- personal safety against effects of excessive temperature.
- protection against spread of fire.
- protection against penetration of solid objects.
- protection against Dust and Water.

All parts which are subject to corrosion under normal working conditions shall be protected effectively. Any protective coating shall not be liable to damage by ordinary handling nor damage due to exposure to air, under normal working conditions. Meters shall withstand solar radiation test.

5.2 The electrical connections in the meter shall be resistant to tampering. These shall be made so as to prevent their opening from outside the meter base/cover accidentally or deliberately without breaking the seals.

5.3 CASE

5.3.1 The meter shall have a reasonably dust proof and moisture proof case which can be sealed in such a way that the internal parts of the meter are accessible only after breaking the seals. The meter shall comply with the dust proof and water proof requirements of IEC-60529 amended to date.

5.3.2 Meter Cover

The cover of meter shall either be made of clear or opaque shatter proof ultra violet stabilized polycarbonate material. In case of Clear polycarbonate material the electronics of the meter shall be protected with a shield inside the Meter Cover made of a suitable opaque material to protect the electronics from extreme environmental/especially solar radiation conditions.

5.3.3 Meter Base

The base of the meter shall be made of strong insulating material.

5.3.4 Meter Security Box

The meter is to be supplied in a transparent Polycarbonate Meter Security box. Meter Security Box shall be designed incorporating the following requirements:

- i) Thickness of Polycarbonate shall be 2 mm minimum
- ii) Continuous Ultrasonic welding shall be provided at the points of contact between Upper and Lower parts and the Meter Cover. The Meter Cover maybe integrated with the Upper part of the Meter Security Box.
- iii) The Terminal Strip once inserted cannot be pulled back.
- iv) The Terminal Strip once fully inserted should be flush with side wall.
- v) Terminal Strip in fully inserted position should cover the Terminal hole opening completely and it shall not be possible to pull it back for all practical purposes.
- vi) Provision should be made to avoid accidental insertion of Terminal Strip before installation.
- vii) The Meter Box shall be supplied with Rag Bolts alongwith nut and washer.

5.4 TERMINALS – TERMINAL BLOCK

5.4.1 The terminals shall be grouped in a terminal block having adequate insulating properties and mechanical strength. The material (Bakelite or similar material) of

which the terminal block is made shall be capable of passing the tests given in ISO Standard 75 for a temperature of 135 Deg. C and glow wire test of 960 Degree C.

- 5.4.2 Arrangements may be provided to prevent the exit of terminal block by force from outside without opening the meter cover.
- 5.4.3 The terminal shall be pressure plate type to permit the connection of both solid and stranded aluminum conductor of diameter 7 mm to a depth of atleast 20 mm without being directly bitten by the screws used for fixing the conductors. The terminals in which screws bite directly into the conductor shall not be acceptable.
- 5.4.4 The moving parts of the terminals including screws shall be made of brass having minimum electrical conductivity of 65% of copper. The fixed part of terminal i.e. pressure plate shall be made of copper having a thickness of 2.4 mm and minimum electrical conductivity of 99.99 % of stranded copper.
- 5.4.5 The terminals shall be Tin or Nickel plated. In case of Tin plating the thickness shall be 20 microns on all parts except threaded portions on which it shall be min 10 microns. In case of Nickel plating the coating thickness shall be 10 microns on all parts except the threaded portion on which it shall be min 7 microns.

5.5 EARTHING CONNECTION ARRANGEMENT

As the base is of insulating material, the common ground of the main PCB shall be internally connected to the neutral point of the terminal block.

5.6 TERMINAL BLOCK COVER

A terminal block cover of transparent polycarbonate insulating material shall be provided. The terminal Block cover shall be fixed with two screws fastened to the terminal block. No access to the terminals shall be possible without breaking the seals.

5.7 PROTECTION AGAINST HEAT, FIRE, PENETRATION OF DUST & WATER, SOLAR RADIATION.

The complete meter i.e. case terminal block shall meet the requirements of clauses 5.7 & 5.8 of IEC 62052-11. For protection against penetration of dust & Water the meter shall be IP54 compliant.

6. ELECTRICAL REQUIREMENTS

6.1 STANDARD RATINGS

Basic/max. Current	10/40 Amp
Reference Voltage	240 V

Reference Frequency	50 Hz
Accuracy Class	1.0
Meter Type	Static Single Phase 2 Wire, 240V, 10(40) Amp 50 Hz, Accuracy Class 1.0 – Energy Meters.

6.2 OTHER ELECTRICAL REQUIREMENTS

Power Losses of voltage circuit at reference voltage	2.0 W & 10 VA
Power Losses of Current circuit at basic current	4 VA
Starting current	0.4% of I_b at unity power factor
Running with no load	From 0.8 to 1.15 of reference voltage but with no current. Meter shall not produce more than one pulse.
Initial Start Up	Within 3 sec., after application of rated voltage meter display shall start functioning.
Temperature rise of external surface	25 Degree C with ambient temp. of 40 Degree C.
Temperature rise of terminal	30 Degree C with ambient temp. of 40 Degree C.

6.2.1 Dielectric strength

Power frequency withstand	4 KV for one minute
Impulse voltage withstand	8 KV : 1.2/50 micro sec & minimum 9 joules
Short time Over current	30 times I_{max} with a relative tolerance of 0% to -10% for $\frac{1}{2}$ cycle at rated frequency
Insulation resistance	More than 5 Mega Ohms.

Creepage Distance 20mm Min

6.3 VOLTAGE RANGE

Specified operating Range From 0.9 to 1.1 of reference voltage

Limit range of operation From 0.0 to 1.15 of ref. Voltage

6.4 ACCURACY REQUIREMENT

6.4.1 Limits of error due to variation of the current.

When the meter is Under reference conditions given in clause 8.5 of IEC 62053-21, the percentage errors shall not exceed the limits given in Table I.

TABLE - I
Percentage Error Limits

Value of Current	Power Factor	Percentage error Limits for meters
$0.05 I_b \leq I < 0.1 I_b$	1	± 1.5
$0.1 I_b \leq I \leq I_{max}$	1	± 1.0
$0.1 I_b \leq I < 0.2 I_b$	0.5 Lagging 0.8 leading	± 1.5 ± 1.5
$0.2 I_b \leq I \leq I_{max}$	0.5 Lagging 0.8 leading	± 1.0 ± 1.0
$0.2 I_b \leq I \leq I_b$	0.25 lagging 0.5 leading	± 3.5 ± 2.5

6.5 INFLUENCE OF OTHER QUANTITIES

6.5.1 Limits of error due to influence quantities:

The additional percentage error due to the change of influence quantities with respect to reference conditions, as given in clause 8.5 of IEC 62053-21 shall not exceed the limits given in Table-II.

TABLE - II

Influence Quantities

Influence quantity		Value of current (balanced unless) otherwise	Power Factor	Limits of Variation in % age error for meters
Ambient temperature variation	9)	0.1 $I_b \leq I \leq I_{max}$ 0.2 $I_b \leq I \leq I_{max}$	1 0.5 lagging	0.05 %/K 0.07 %/K
Voltage variation $\pm 10\%$	1) 8)	0.05 $I_b \leq I \leq I_{max}$ 0.1 $I_b \leq I \leq I_{max}$	1 0.5 lagging	0.7 1.0
Frequency variation $\pm 2\%$	8)	0.05 $I_b \leq I \leq I_{max}$ 0.1 $I_b \leq I \leq I_{max}$	1 0.5 lagging	0.5 0.7
Harmonic components in the current and voltage circuits	5)	0.5 I_{max}	1	0.8
DC and even harmonics in the a.c. current circuit	4)	0.5 I_{max}	1	3.0
Odd harmonics in the a.c. current circuit	5)	0.5 I_b 2)	1	3.0
Sub-harmonics in the a.c. current circuit	5)	0.5 I_b 2)	1	3.0
Continuous magnetic induction of external origin	5)	I_b	1	2.0
Magnetic induction of external origin 0.5 mT	6)	I_b	1	2.0
Electromagnetic fields RF	-	I_b	1	2.0
Operation of accessories	7)	0.05 I_b	1	0.5
Conducted disturbances, induced by radio-frequency fields	-	I_b	1	2.0
Fast transient burst	-	I_b	1	4.0

- 1) For the voltage ranges from -20% to -10% and $+10\%$ to $+15\%$ the limits of variation in percentage errors are three times the values given in this table.

Below 0.8 Un the error of the meter may vary between $+10\%$ and -100% .

- 2) The distortion factor of the voltage shall be less than 1% . For test condition see 8.2.2 and 8.2.3.

- 3) Polyphase meters with three measuring elements shall measure and register, within the limits of variation in percentage error shown in this table. If the following phases are interrupted:

- In a three-phase, four wire network one or two phases:
- In a three-phase, three wire network (if the meter is designed for this service) one of the three phases.

This only covers phase interruptions and does not cover events such as transformer fuse failures.

- 4) This test does not apply to transformer-operated meters. The test conditions are specified in Clause A.1.

- 5) The test conditions are specified in 8.2.1 to 8.2.4.

- 6) A magnetic induction of external origin of 0.5 mT produced by a current of the same frequency as that of the voltage applied to the meter and under the most unfavourable conditions or phase and direction shall not cause a variation in the percentage error of the meter exceeding the values shown in this table.

The magnetic induction shall be obtained by placing the meter in the centre of a circular coil, 1 m in mean diameter of square section and of small radial thickness relative to the diameter and having 400 At .

- 7) Such an accessory, when enclosed in the meter case, is energized intermittently, for example the electromagnet of a multi-rate register.

It is preferable that the connection to the auxiliary device(s) is marked to indicate the correct method of connection. If these connections are made by means of plugs and sockets, they should be irreversible.

However, in the absence of those markings or irreversible connections, the variations of errors shall not exceed those indicated in this table if the meter is tested with the connections giving the most unfavourable condition.

- 8) The recommended test point for voltage variation and frequency variation is /b for direct connected meters and /n for transformer-operated meters.

- 9) The mean temperature coefficient shall be determined for the whole operating range. The operating temperature range shall be divided into 20 K wide ranges. The mean temperature coefficient shall then be determined for these ranges by taking measurements 10 K above and 10 K below the middle of the range. During the test, the temperature shall be in no case outside the specified operating temperature range.
- 10) The test only applies to transformer-operated meters.

6.6 METER CONSTANT

The relation between the test output and the indication in the display shall comply with the marking on the name plate.

Output devices generally do not produce homogeneous pulse sequences. Therefore, the manufacturer shall state the necessary number of pulses to ensure a measuring accuracy of at least 1/10 of the class of the meter at the different test points.

7. METER CHARACTERISTICS

The meter shall generally comprise of the following characteristics as a minimum. A list of characteristics is appended below :

7.1 BASIC DATA RECORDING AND STORAGE

7.1.1 STATIC WATTHOUR METER

- Energy (Kwh).
- At-least three months Billing Data kWh, shall be available at all times.

7.1.2 MULTI-RATE METER (when applicable)

- Min. Four Multi Rate periods Energies (KWh).
- Min Two Seasons per year should be programmable
- Min 100 days per year holidays should be programmable
- At-least three months Billing Data kWh, shall be available at all times.

7.1.3 BACK-UP BATTERY (APPLICABLE IN CASE OF MULTI-RATE METERS)

- The Back-up Battery shall be of Lithium-Ion type.
- Low Battery indication shall be displayed when min. 25% battery life is left.
- Storage life of Battery shall be more than 15 years.
- Without any Power the Back-Up battery shall maintain the time, calendar and Multi-Rate program for a continuous period of at-least 12 months.
- The battery shall be connected using standard connectors, it shall not be welded, brazed or soldered and it shall be replaceable in the field.

7.2 SECURITY FEATURES, EVENT RECORDING, AND DIAGNOSTICS:

7.2.1 Security Features

- Every Meter shall have a unique serial No. in its memory which can be displayed/reported.
- The No. of times programmed and the identification of the last programmer shall be reported/displayed.
- A programmable meter ID code shall be provided.
- At-least two levels of access/security codes shall be provided one for meter reading (only) by the authorized personnel and a second one for programming and reading.
- The meter shall be capable of recording energy accurately in case of change of phase with neutral wire.
- LED indication shall be provided for KWh.
- Reverse energy flow indication shall be provided on the meter through LCD/LED.
- Meter shall keep on recording/operating with or without neutral. Without Neutral it shall record atleast 10% of Basic load.
- The meter shall be protected against any external interference such as influence of Strong Electromagnet/Radar Magnet, CD drive, Mobile phones and shall comply to all relevant IEC/ANSI standards for functional performance and loss of data.
- Total No. of Power Outage.
- At-least 20 total events shall be recorded in the meter at any one time before Roll Over they may comprise of the above or any additional features.

7.2.2 Diagnostics

The meter shall display cautions and diagnostics for the following conditions;

- Un-programmed Meter.
- Self check diagnostics for RAM/ROM, Processor, non-volatile memory failure and other essential hardware circuitry.

7.3 DISPLAY

- The Display shall be LCD type with at-least 5 whole digits for Energy consumption.
- Display scrolling time shall be programmable.
- Min. three programmable Display modes shall be available.
- First Display mode shall be the Normal or Automatic display mode. Second display mode shall be for Security / Diagnostics etc. The third Display mode shall be for Test Purposes. Activation of Display Mode shall either be with a secure Push Button or an equally secure alternate method.
- All Segment Check.
- Display Mode Indicator.
- Display Quantity Labels.
- Pulse Output for field testing of Meter shall be available optically.

7.4 METER PROGRAMMING, SOFTWARE, AND SECURITY

The following features shall be programmable in the meter as a minimum along-with other features that may be provided:

- The meter shall have non-volatile EEPROM memory.
- Once programmed the meter shall be re-programmable as a new meter or as existing meter without loss of previous data, through the required security passwords.
- Meter programming shall be DOS/Windows based.
- An Optical Communication Port shall be provided on the meter cover and shall either be IEC 62056-21 or ANSI C12.18 Type II compliant

8. TESTS

Following routine, type and sample tests shall be carried out as per requirements of IEC standards.

8.1 ROUTINE TESTS

Following routine tests shall be carried out on KWH, KW meters as per respective IECs:

- Accuracy Test
- Running with no load test
- Starting current test
- Insulation resistance test

8.2 TYPE TEST

Following type tests shall be carried out on KWH, KW meters as per respective IECs.

8.2.1 Tests of mechanical requirements

- Spring hammer test
- Shock test
- Vibration test
- Test of resistance to heat and fire
- Test of protection against penetration of dust and water

8.2.2 Test of climate influence

- Dry heat test
- Cold test
- Damp heat cycle test
- Solar Radiation test

8.2.3 Tests of electrical requirements

- Test of power consumption of voltage circuit
- Test of power consumption of current circuit
- Test of effect of voltage dips and short interruptions
- Test of influence of short time over current
- Test of influence of self heating
- Test of influence of heating
- Impulse voltage test
- A.C. voltage test.

8.2.4 Tests for electromagnetic compatibility (EMC)

- Test of immunity to electrostatic discharges
- Test of immunity to electromagnetic HF fields
- Fast transient burst test
- Radio interference measurement

8.2.5 Tests of Accuracy requirements (for KWH meter parts as per IEC 62053-21 where applicable)

- Test of Accuracy
- Test of influence quantities
- Test of no load condition
- Test of starting condition

9. NAME AND RATING PLATE

9.1 A suitable name/rating plate shall be provided inside at the front of the meter, indicating the following information:

- Name of the manufacturer and country of origin
- Type of meter
- Meter rating and other information
- WAPDA P.O. No.
- Serial No. and year of manufacture

10. PACKING

10.1 Each meter shall be individually packed in thermopore packing or thermopore lined packing, covered with adhesive tape at joints or plastic strips etc.

10.2 For overseas shipment, a suitable number of individually thermopore packed meters shall then further be packed in sea worthy packing.

10.3 The packing shall be strong enough to withstand rigors of ocean, rail, road etc.

11. SAMPLE

At least one number sample of multirate meter shall be submitted with the bid.

12. PROTOTYPE APPROVAL

The successful bidder shall submit 3 nos samples for Prototype Approval in case valid Prototype Approval as per WAPDA purchase procedure does not exist for the offered model/type. All tests shall be carried on the submitted prototype meters to ensure compliance to WAPDA and IEC specs. Meters shall be subjected to all tests including type, routine and sample tests. Once approved such prototype approval shall be valid as per WAPDA purchase procedure.

13. INSPECTION

The successful bidder shall offer the meters for testing/inspection, Procedure for pre-shipment inspection is given below:

13.1 SAMPLE TESTS (ELECTRICAL)

13.1.1 The meters offered for acceptance shall be grouped into lots containing upto 1000 meters. A sample comprising of five (05) meters shall be selected at random from each lot and subjected to tests as below:

Starting Current Test

Creep Test
Accuracy Test
A.C. Voltage Test

13.1.2 The meters offered for acceptance shall be grouped into lots containing upto 1000 meters. A sample comprising of two (02) meters shall be selected at random from each lot and subjected to following tests:

Impulse Test
Power Loss Test

13.1.3 The lot shall be accepted if all the meters qualify in the tests described in clause 13.1.1 & 13.1.2 above. The lot shall be rejected if two or more meters fail in any of the tests. If any one meter fails in any of the above tests re-sampling shall be carried out after collecting same No. of meters and subjected to the tests described in clause 13.1.1 & 13.1.2 above. If any one meter fails in any of the above tests the whole lot shall be rejected.

13.2 SAMPLE TESTS (MECHANICAL)

13.2.1 The meter offered for acceptance shall be grouped into lots containing upto 1000 meters. Sample comprising of three (03) meters shall be selected at random from each lot and subjected to tests as below:

<u>Sr. No.</u>	<u>Description</u>	<u>Nos. of Meters</u>
1.	Test of protection against penetration of dust and water	One meter
2.	Dimensional Check	One meter
3.	Tests of Electromagnetic Compatibility/Interference (EMI)	One meter

The lot shall be accepted if meters qualify the above tests in clause 13.2.1. In case any meter fails in the relevant test, another sample of double the size shall be selected and test/tests repeated. If any meter fails in the relevant in the second group, the entire lot shall be rejected.

13.3 VERIFICATION TEST OF FUNCTIONALITY OF SOFTWARE

13.3.1 Verification test of the functionality of software and display features on offered meters shall be promoted by loading/unloading of programme and auditing the diagnostic reports. The number of meters shall be three if any meter fails to comply with the functionality requirements the entire offered lot shall be rejected.

13.4 TYPE TESTS

- 13.4.1 The remaining type tests not performed on the above samples shall be carried out (as per recommended sequence of IEC 62052-11 Annexure (F) on three (03) Nos. meters out of the total offered meters. If two meters fail in any of the above tests, the lot shall be rejected. If one of the meters fails to qualify any of the above tests, re-sampling shall be carried out. In case of failure of any of the tests the lot shall be rejected.

14. **WARRANTY**

The supplier shall provide two years warranty for the successful operation of the meter including its maintenance where ever required.

15. **TRAINING**

The successful bidder shall arrange a comprehensive practical training regarding programming, billing, loading of software etc. in Pakistan.

16. **BID DATA, TEST CERTIFICATES, DRAWINGS, LITERATURE, REFERENCE LIST & MANUFACTURING EXPERIENCE**

All the bidders shall submit complete technical data, detailed drawings test certificates, literature in English language, supply reference list and manufacturing experience alongwith the bid.

REFERENCE STANDARDS

When following standards referred to in this document have been superseded, the latest revisions shall apply.

1. METERING STANDARDS**a. IEC**

- 62053-21 : 2003, Static Meters for Active Energy (Classes 1 and 2).
- 61358 (1996-05) Acceptance inspection for direct connected alternating current static watt-hour meters for active energy (Classes 1 and 2).
- 62052-11 : 2003 Electricity Metering Equipment (AC) – General Requirements, Tests and Test conditions
- 61162, 61107 Optical interface

b. ANSI

- C12.18 Protocol specification for ANSI type II Optical ports
- C12.19 Utility industry end device data tables

2. ELECTRICAL TESTING STANDARDS**a. IEC**

- 60038: 1983, IEC standard voltages.
50(301, 302, 303): 1983, International Electrotechnical Vocabulary (IEV) Chapter 301: General terms on measurements in electricity. Chapter 302: Electrical measuring instruments. Chapter 303: Electronic measuring instruments.
- 60060-1: 1989 High voltage test techniques.
- 60085: 1984, Thermal evaluation and classification of electrical insulation.
- 61000-4-2: 1995, Electromagnetic compatibility (EMC)-Part 4: Testing & measurement techniques-section 2: Electrostatic discharge immunity test.
- 61000-4-3: 2002, Electromagnetic compatibility (EMC)-Part 4-3: Testing & measurement techniques-section 2: Radiated radio frequency electromagnetic field immunity test.

61000-4-4: 1995, Electromagnetic compatibility (EMC)-Part 4: Testing & measurement techniques-section 4: Electrical fast transient/burst immunity test.

CISPR22: 1997, Information technology equipment-Radio disturbance characteristics-Limits & methods of measurement.

b. ANSI

C37.90.1 – 1989, IEEE standard surge withstand capability

C62.41 – 1991, IEEE recommended practice on surge voltages in Low-voltage AC power circuits.

3. MECHANICAL TESTING STANDARDS

a. IEC

60529: 1989, Degrees of protection provided by enclosures (IP code).

60695-2-11: 2000, Fire hazard testing. Part2-11: Glowing/hot wire based test methods.

60817: 1984, Spring operated impact test apparatus and its calibration.

b. ISO Standard

75-2: 1993, Plastics – Determination of temperature of deflection under load-Part 2: Plastic & ebonite.

4. ENVIRONMENTAL STANDARDS

a. IEC

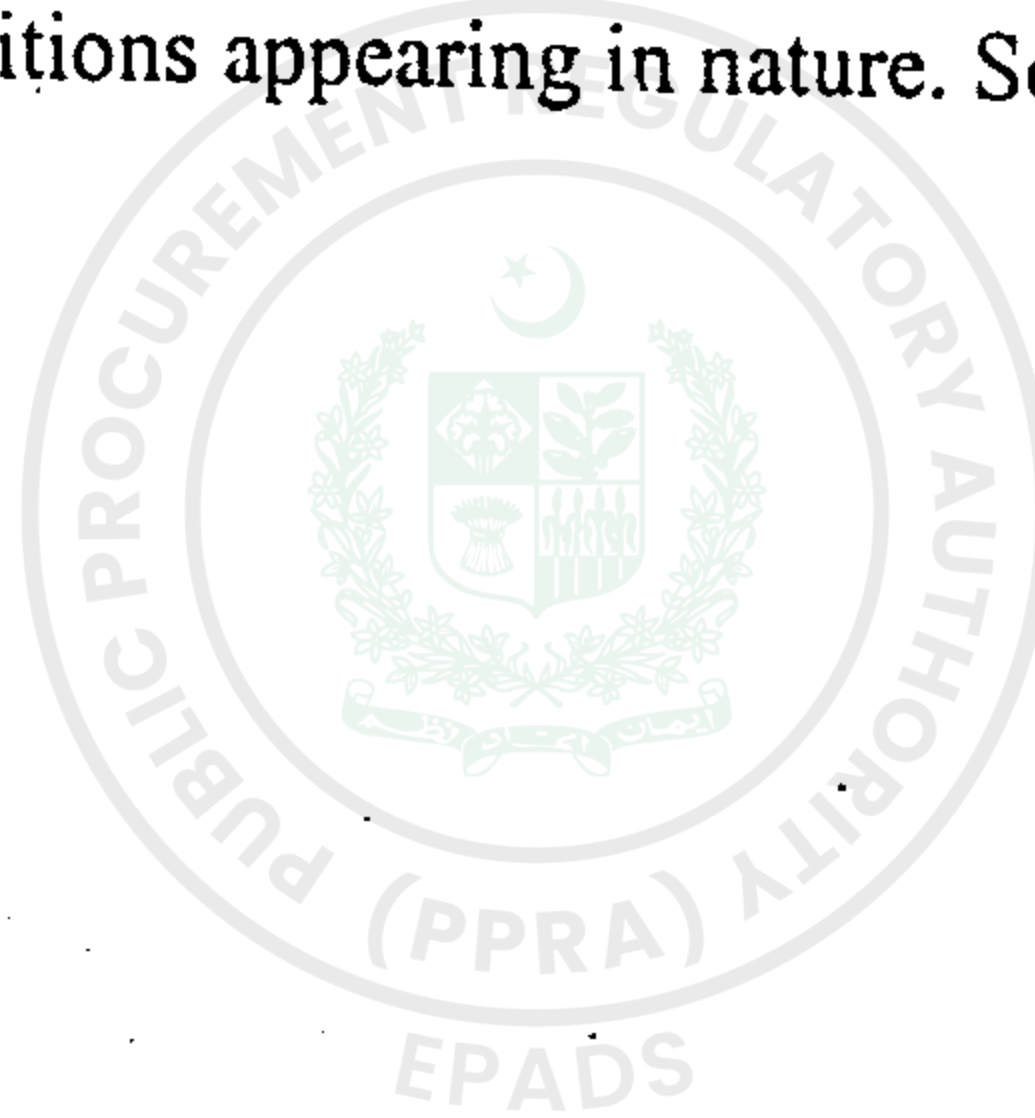
60068-2-1: 1990, Environmental testing, part 2: Tests. Tests A: Cold.

60068-2-2: 1974, Basic environmental testing procedures, part 2: Tests. Tests B: Dry Heat.

60068-2-5: 1975, Basic environmental testing procedures, part 2: Tests. Test Sa: Simulated solar radiation at ground level.

60068-2-6: 1995, Environmental testing, part 2: Tests. Test Fc: Vibration (sinusoidal).

- 60068-2-1.1: 1981, Basic environmental testing procedures, part 2: Tests. Test Ka: Salt mist.
- 60068-2-27: 1987, Basic environmental testing procedures, part 2: Tests. Test Ea and guidance: Shock.
- 60068-2-30: 1980, Basic environmental testing procedures, part 2: Tests. Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle).
- 60721-1: Ed. 2.0 b Classification of environmental conditions. Part 1: Environmental parameters and their severities.
- 60721-2-1 (1982-01) Classification of environmental conditions. Part 2: Environmental conditions appearing in nature. Temperature and humidity.
- 60721-2-4 (1987-12) Classification of environmental conditions. Part 2: Environmental conditions appearing in nature. Solar Radiation and temperature.





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Dated: 24-04-2012

All Chief Executive Officers,
DISCOs.

Subject: SPECIFICATION DDS-110:2012 OF METER DATA COLLECTION (MDC) SERVER TO BE USED IN ADVANCED METERING INFRASTRUCTURE (AMI)

Please find enclosed herewith specification No. DDS-110:2012 for Meter Data Collection (MDC) Server to be used in AMI for perusal and information please.

DA/Draft Specification


(Dr. Rana Abdul Jabbar Khan)
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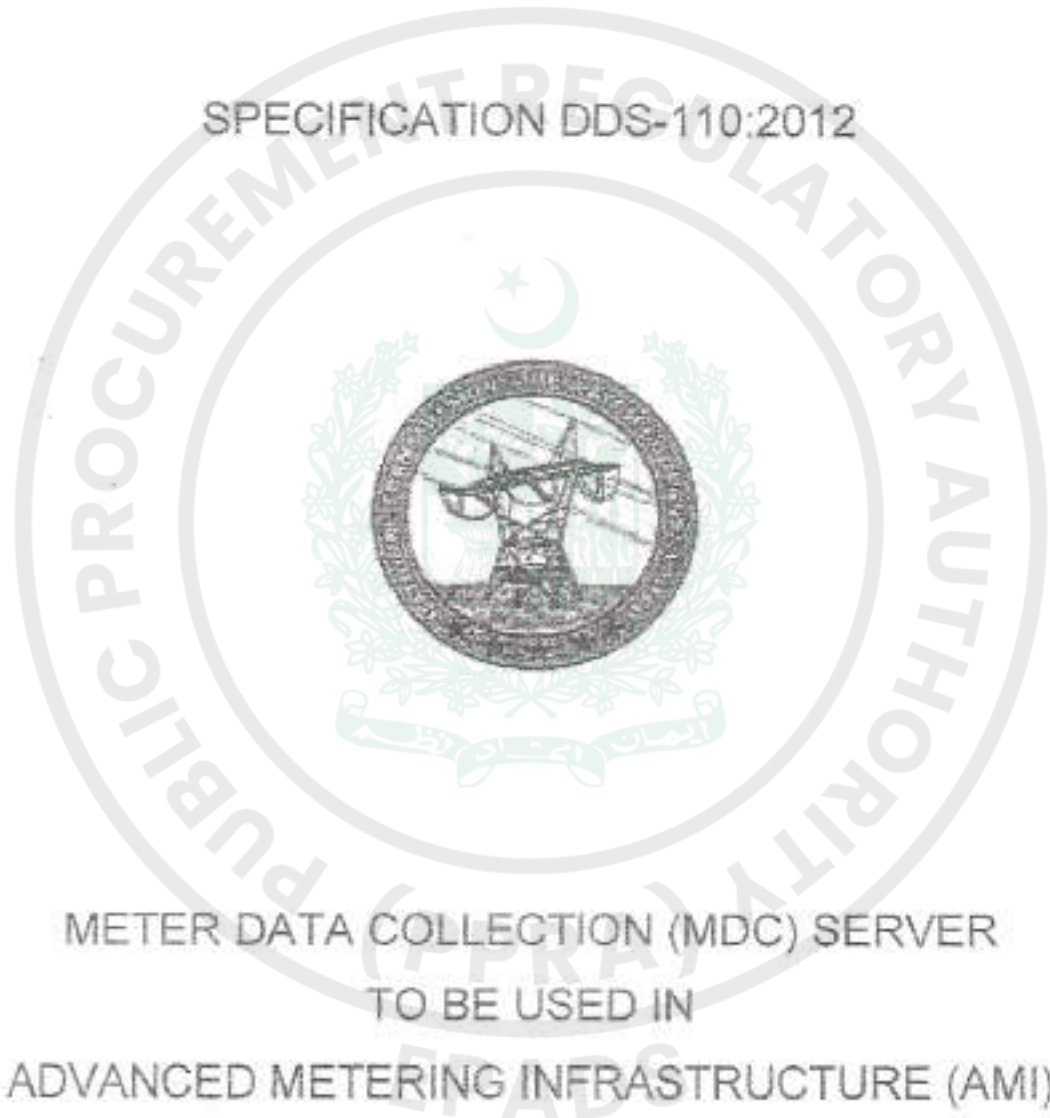
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9. All meter manufacturers.
10. P.A to Chief Engineer (D&S) NTDC, Lahore. *M/S. MicroTech*
11. Master file.

EPADS

NATIONAL TRANSMISSION AND DESPATCH COMPANY
(NTDC)

SPECIFICATION DDS-110:2012



METER DATA COLLECTION (MDC) SERVER
TO BE USED IN
ADVANCED METERING INFRASTRUCTURE (AMI)

(D&S) Department

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VA

SPECIFICATION FOR METER DATA COLLECTION (MDC) SERVER TO BE USED IN ADVANCED METERING INFRASTRUCTURE (AMI)

1. Foreword:

- 1.1. This standard specification has been prepared by the Engineering Directorate of Chief Engineer (D&S).
- 1.2. This specification is intended for procurement of material and not for contract.
- 1.3. This specification is subject to revision as and when required.

2. Scope:

- 2.1. This specification is being prepared for the introduction of a Meter Data Collection (MDC) server to be used with Advanced Metering Infrastructure (AMI).
- 2.2. This specification is intended for the introduction of MDC based Meter Reading System to be used with Meters as per relevant specification DDS-50:2007, DDS-60:2007 and DDS-65:03 having communication as per specification DDS-98:2011.
- 2.3. This specification covers the aspects of Meter Data Collection (MDC) server specification, MDC Software Specification, MDC integration with AMI and multi-vendor protocol.
- 2.4. This specification shall cover the multi-vendor compliance of the existing manufacturers as well as the prospective vendors.

3. Definitions:

3.1. AMI:

Advanced Metering Infrastructure (AMI) are systems that measure, collect and analyze energy usage, and communicate with metering devices such as electricity meters, either on request or on a schedule. These systems include hardware, software, communications and Meter Data Management (MDM) software etc.

3.2. Meter Serial Number:

Meter serial number is printed on meter label and stored in meter memory.

3.3. Manufacturer Identifier:

The unique numeric identification of each meter manufacturer.

3.4. Meter Type:

Meter Type shall correspond to design specification i.e. DDS-50:2007, DDS-60:2007 & DDS-65:03.

3.5. MDC:

Meter Data Collection Server is a system in Advanced Metering Infrastructure (AMI) used to obtain data from the meters and store it into the database.

3.6. Wakeup:

Wakeup is a request sent by Meter Data Collection (MDC) Server to the meter for making a connection.

3.7. Pull:

Pull is a mechanism in which MDC demands for specific information or data from meter and meter sends data in response.

3.8. GPRS:

General Packet Radio Service is a packet oriented communication technology. This technology is specifically used for communication between mobile phone and internet.

3.9. SMS:

Short Message Service is a communication service standardized in the GSM mobile communication system.

3.10. Voice Call:

Voice Call is a GSM service used to interchange speech data between two communication entities.

3.11. TCP:

Transmission Control Protocol is transport layer protocol for Internet Protocol (IP).

3.12. IP:

Internet Protocol is a networking layer protocol and forms the core of Internet all around the world.

3.13. DVD:

DVD is an optical disc storage media format, offering higher storage capacity than Compact Discs while having the same dimensions.

3.14. RAID:

RAID (an acronym for redundant array of independent disks; originally redundant array of inexpensive disks) is a storage technology that combines multiple disk drive components into a logical unit to increase the data storage reliability.

3.15. OBIS:

The OBIS Object Identification System defines identification codes for all data in DLMS/COSEM compliant metering equipment.

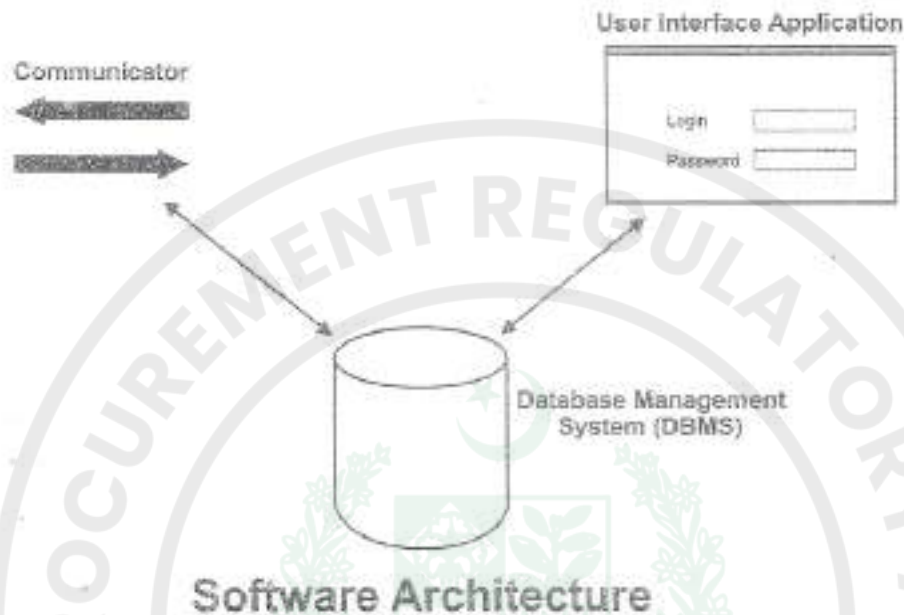
3.16. Mockup:

In manufacturing and design, a mockup is a scaled model of a design or device, used for teaching, demonstration, design evaluation, promotion, and other purposes. A mockup is a prototype if it provides at least part of the functionality of a system and enables testing of a design.

5. Software Architecture:

Meter Data Collection (MDC) Server shall have following:

- 5.1. User Interface Application
- 5.2. Database Management System (DBMS)
- 5.3. Communicator



6. User Interface Application:

- 6.1. It is responsible for providing a graphical interface to the user to view the data received from the communicator; send meter configuration and other relevant data to the meters.
- 6.2. MDC software shall be capable of displaying all metering data as per relevant meter's specifications (DDS-50:2007, DDS-80:2007 and DDS-65:03).
- 6.3. The interface application shall provide customer hierarchy for at least 3 levels. It shall also provide user management and user rights. User rights shall limit a user to a certain level of customer hierarchy.
- 6.4. The user interface application shall provide a mechanism for meter management functions. For example, adding or deleting a meter, meter configuration etc.
- 6.5. The user interface application shall provide a Graphical User Interface (GUI).

7. Database Management System (DBMS):

- 7.1. The Database Management System (DBMS) is a central repository for all metering data collected through communicator.
- 7.2. The host software shall have capabilities to store and report all metering data in a database management system as required in the relevant meter specifications like billing data, event data, load profiles etc.
- 7.3. It shall provide mechanism for periodic as well as on-demand backup; and also, it shall be able to restore data on request.
- 7.4. The Database server shall have backup interface for DVD.
- 7.5. The database shall be capable to hold the metering data as specified in "Schedule of Technical Data" for a period specified therein (Annex-I)

8. Hardware:

- 8.1. The Database Management Server shall have RAID hard drives.
- 8.2. There shall be at least one backup server (optional).
- 8.3. Server Class machines shall be used.
- 8.4. Online UPS shall be used.
- 8.5. Reliable Internet Connection with at least one static public IP address shall be used.
- 8.6. There shall be arrangement for at least two generators.
- 8.7. Data center room shall be properly air-conditioned.
- 8.8. There shall be at least one GSM Modem for Wakeup SMS/voice call to send one SMS/ make Voice call all at a time.
- 8.9. It shall be possible to use more than one server for load sharing when data load is high. The vender will propose system on the basis of requirements given by the customer in Annex-1.

9. GSM Modem:

GSM modem of following specifications shall be used with MDC

9.1. Quad-Band GSM/GPRS 850/900/1800/1900MHz

9.2. Compliant to GSM phase 2/2+

9.2.1. Class 4 (2W @ 850/900MHz)

9.2.2. Class 1(1W @ 1800/1900MHz)

9.3. The Modem shall have the capability for SMS and voice call communication

9.4. The modem shall have LED indicator visible from the distance.

9.5. The LED shall indicate the operational status of the modem like:

9.5.1. Fast blinking LED indicates absence of SIM card or no network service or insufficient signal strength.

9.5.2. OFF LED indicates modem is not working.

9.5.3. Slow blinking LED indicates healthiness of the modem and is registered to the GSM network

9.6. The SIM card shall be field replaceable

9.7. It shall have RS232 or USB interface for computer

10. Communicator:

It is responsible for handling all communications between meters and MDC and sending data into database for the user interface application.

10.1 Communication Protocols:

10.1.1. MDC shall support DLMS/COSEM communication protocol.

10.1.2. MDC shall also accept output data files as specified in DDS-105:2011 (if applicable).

10.2. Communication Modes:

Meters shall be configurable to one of following Mode-I or Mode-II at a time

10.2.1. Mode I (GPRS as Primary Medium and SMS/Voice Call for Wakeup):

10.2.1.1. Pull at Preprogrammed Interval:

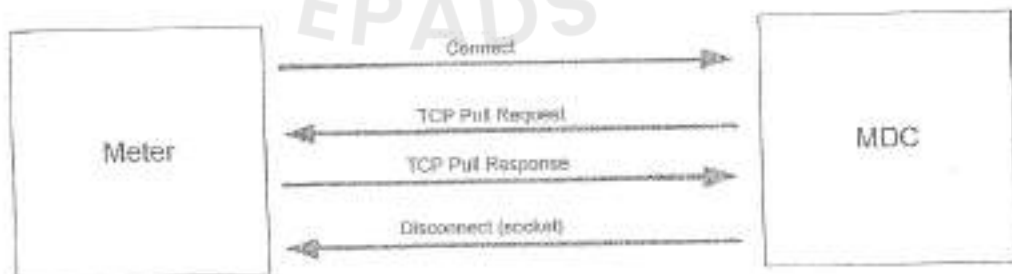
Meter shall establish a TCP connection with the MDC server at a predefined interval via GPRS. Number of retries and retry interval shall be programmable.

The MDC shall pull data from the meter as shown in the figure below:



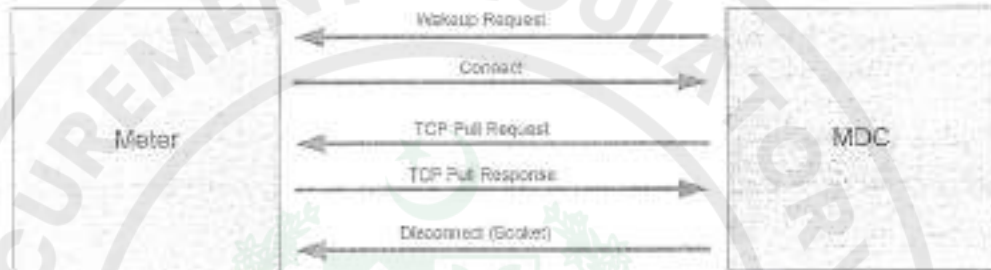
10.2.1.2. Pull at Events & Alarms:

The meter has a number of events/alarms; any of these events/alarms can be configured as a major alarm. If a major alarm/event occurs, meter shall establish a TCP/IP connection with the MDC via GPRS. Number of retries and retry interval shall be programmable. The MDC shall pull data from the meter as shown in the figure below:



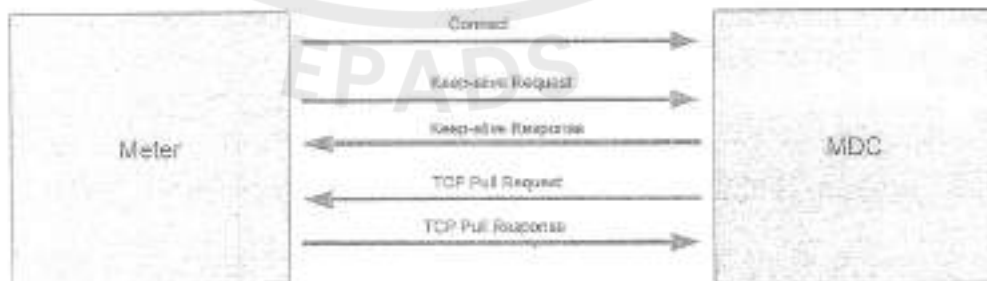
10.2.1.3. Pull on-Demand:

For on-demand data the MDC shall send wakeup SMS or initiate a wakeup voice call for the meter. In response the meter shall establish a TCP/IP connection with the MDC server via GPRS. Number of retries and retry interval shall be programmable. The MDC shall pull data from the meter as shown in the figure below:



10.2.2. Mode-II (GPRS always alive):

Meter shall always maintain a TCP/IP connection with the MDC server via GPRS. In this process the meter shall send periodic heart beat/keep-alive packets to the MDC server. The MDC shall pull data from the meter as and when required as shown in the figure below:



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10.3. Communication Channels:

Meter shall have two programmable IP addresses. For communication via GPRS one of two programmed IP address shall be used as primary address and the other IP address shall be used as secondary address. The meter shall try to establish a TCP/IP connection with the primary IP address if it fails to do so then the meter shall try to establish TCP/IP connection with secondary IP address.

Meter shall have at least three programmable GSM Numbers. In case of Wakeup command via SMS or voice call the meter shall only respond to the wakeup commands originated from the GSM number programmed in it.

10.4. Communication OBIS codes:

10.4.1. Energy and Demand:

Standard OBIS codes for quantities used for billing purposes are shown below.

Cumulative Active energy absolute (Abs KWH)	
Total	1.0.15.8.0.255
Tariff 1	1.0.15.8.1.255
Tariff 2	1.0.15.8.2.255
Tariff 3	1.0.15.8.3.255
Tariff 4	1.0.15.8.4.255

Cumulative Reactive Energy KVarh Q1 + Q3 in single packet (Pakistan Specific)	
Total	1.0.94.92.0.255
Tariff 1	1.0.94.92.1.255
Tariff 2	1.0.94.92.2.255
Tariff 3	1.0.94.92.3.255
Tariff 4	1.0.94.92.4.255

Maximum Demand Active absolute (MDI-KW abs)	
Total	1.0.15.6.0.255
Tariff 1	1.0.15.6.1.255
Tariff 2	1.0.15.6.2.255
Tariff 3	1.0.15.6.3.255
Tariff 4	1.0.15.6.4.255

Cumulative Maximum Demand Active absolute (Cum-MDI-KW abs)	
Total	1.0.15.2.0.255
Tariff 1	1.0.15.2.1.255
Tariff 2	1.0.15.2.2.255
Tariff 3	1.0.15.2.3.255
Tariff 4	1.0.15.2.4.255

Associated data	
MDI Reset Date and Time	1.0.0.1.2.255
MDI Reset Count	1.0.0.1.0.255

[Handwritten signature]

10.4.2. Instantaneous:

Standard OBIS codes instantaneous data elements are shown below:

Quantity	OBIS code
Aggregate Active power Import (KW+)	1.0.1.7.0.255
Aggregate Active Power Export (KW-)	1.0.2.7.0.255
Aggregate Reactive power Import	1.0.3.7.0.255
Aggregate Reactive power export	1.0.4.7.0.255
Voltage Phase A	1.0.32.7.0.255
Voltage Phase B	1.0.52.7.0.255
Voltage Phase C	1.0.72.7.0.255
Current Phase A	1.0.31.7.0.255
Current Phase B	1.0.51.7.0.255
Current Phase C	1.0.71.7.0.255
Average Power Factor	1.0.13.7.0.255
Frequency	1.0.14.7.0.255
Time	1.0.0.9.1.255
Date	1.0.0.9.2.255
Current Tariff	0.0.96.14.0.255
CT ratio Numerator	1.0.0.4.2.255
CT ratio Denominator	1.0.0.4.5.255
PT ratio Numerator	1.0.0.4.3.255
PT ratio Denominator	1.0.0.4.6.255
Customer Code	0.0.96.1.10.255

10.4.3. Events Codes and Event notification Packet:

For Event notification standard packet of DLMS/COSEM with Tag 0xC2 should be used. Referred to IEC-62056-53 OBIS code to be used in this Packet is 0.0.96.11.0.255. This OBIS code contains the event code of most recent event occurred. Event code list is implementation specific. List of Event codes for all necessary quantities is given below.

List of event Codes					
Quantity	Event Code	DDS-50	DDS-60	DDS-65 Multi Tariff	DDS-65 Single Tariff
MDI reset	101	Y	Y	Y	N
Parameterization	102	Y	Y	Y	N
Power fail start (will be reported when power is restored)	111	Y	Y	Y	N
Power fail end	112	Y	Y	Y	N
Phase failure	113	Y	Y	N	N
Over Volt	114	Y	N	N	N
Under Volt	115	Y	N	N	N
Demand Over Load	116	Y	N	N	N
Reverse Energy (Active energy)	117	Y	Y	N	N
Reverse Polarity	118	Y	Y	N	N
CT Bypass	121	Y	N	N	N

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10.4.4. Keep-alive Packet Format:

The Transport Layer payload of Keep-alive request is defined in the table as follows:

Tag	Length of Meter Number	Meter Number
1 byte (0xDD)	1 byte	As Specified in Section 10.5

The Transport Layer payload of Keep-alive response is defined in the table as follows:

Tag
1 byte (0xDA)

The above request and response packets of Keep-alive commands are payload of Transport Layer. The reasons behind choosing it as Transport Layer payload are given below:

- To keep GPRS data traffic low.
- The purpose served by this packet is beyond the DLMS protocol specification.
- Tags used for Keep-alive request and response packets are utilized by DLMS specification for some other purpose.

Communication network layers stack, showing the generation of Keep-alive request and response, is shown below.

		Keep-alive Request/Response
	Transport Layer Header	Transport Layer payload
IP Header	IP payload	

4

10.5. Meter Identifier:

The MDC shall communicate with meter using a unique 4-Byte Meter Identifier. The office of the Chief Engineer Design and Standards shall allocate prefix to each manufacturer a 4 byte meter identifier as mentioned below:

Meter Serial Number Format		
00-40	00-99	000001-999999
Manufacturer	Meter Type	Meter Serial Number
40 SBL	99 DDS-50	Start =000001 , End = 999999
39 PEL	98 DDS-60	
38 Escorts	97 DDS-65	
37 KBK	Etc.	
36 MicroTech		
35 CTI		
34 TIP		
33 Ace Indigo		
32 Creative Electronics		
Etc.		

11. Data Export Formats:
11.1 Billing_Data.csv

Sr #	Item Name	Type (ASCII Text)	Description
1	Reading Date	YY/MM/DD	
2	Reading Time	HH:MM:SS	
3	Reference Number	XXXXXXXXXXXXXXXX	
4	Meter Serial Number	NNNNNNNNNN	
5	T1 Active kWh	XXXXXX.XX	kWh
6	T2 Active kWh	XXXXXX.XX	kWh
7	T3 Active kWh	XXXXXX.XX	kWh
8	T4 Active kWh	XXXXXX.XX	kWh
9	TL Active kWh	XXXXXX.XX	kWh
10	T1 Reactive kVArh	XXXXXX.XX	kVArh
11	T2 Reactive kVArh	XXXXXX.XX	kVArh
12	T3 Reactive kVArh	XXXXXX.XX	kVArh
13	T4 Reactive kVArh	XXXXXX.XX	kVArh
14	TL Reactive kVArh	XXXXXX.XX	kVArh
15	T1 Active MDI	XXX.XXX	kW
16	T2 Active MDI	XXX.XXX	kW
17	T3 Active MDI	XXX.XXX	kW
18	T4 Active MDI	XXX.XXX	kW
19	TL Active MDI	XXX.XXX	kW
20	T1 Cumulative Active MDI	XXXXXX.XX	kW
21	T2 Cumulative Active MDI	XXXXXX.XX	kW
22	T3 Cumulative Active MDI	XXXXXX.XX	kW
23	T4 Cumulative Active MDI	XXXXXX.XX	kW
24	TL Cumulative Active MDI	XXXXXX.XX	kW
25	MDI Reset Date	YY/MM/DD	
26	MDI Reset Time	HH:MM:SS	
27	MDI Reset Count Number	XXXX	

Note: Unavailable quantities shall be appended by blank spaces

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11.2 Instantaneous_Data.csv

Sr #	Item Name	Type (ASCII Text)	Description
1	Reading Date	YY/MM/DD	
2	Reading Time	HH:MM:SS	
3	Reference Number	XXXXXXXXXXXXXXXX	
4	Meter Serial Number	NNNNNNNNNN	
5	Aggregate Active power Import (KW+)	XXXXXXXX.XXX	kW
6	Aggregate Active Power Export (KW-)	XXXXXXXX.XXX	kW
7	Aggregate Reactive power Import	XXXXXXXX.XXX	kW
8	Aggregate Reactive power export	XXXXXXXX.XXX	kW
9	Voltage Phase A	XXXXXXXX.XXX	Volts
10	Voltage Phase B	XXXXXXXX.XXX	Volts
11	Voltage Phase C	XXXXXXXX.XXX	Volts
12	Current Phase A	XXXXXXXX.XXX	Amperes
13	Current Phase B	XXXXXXXX.XXX	Amperes
14	Current Phase C	XXXXXXXX.XXX	Amperes
15	Average Power Factor	X.XX	
16	Frequency	XX.XX	Hz
17	Time	YY/MM/DD	
18	Date	HH:MM:SS	
19	Current Tariff	X	Number

Note: Unavailable quantities shall be appended by blank spaces

12. User Acceptance Criteria:

Following tests shall only to be performed when MDC is fully installed at utility designated location.

For energy meter prototype testing as per DDS-98 required communication verification as per Annex-II shall be performed using MDC software mockup.

12.1 Software Architecture

Criteria	Pass	Fail
Provision of User Interface Application		
Provision of Database Management System		
Provision of Communicator Application		

12.2 User Interface Application

Criteria	Pass	Fail
Capable of displaying all metering data as per relevant WAPDA/PEPCO meter's specifications i.e. DDS-50, DDS-60 and DDS-65		
Provides customer hierarchy for at least 3 levels		
Provides user management and user rights		
User rights limit a user to a certain level of customer hierarchy		
Provides a GUI		

12.3 Database Management System

Criteria	Pass	Fail
Stores and reports all metering data in DBMS		
Provides mechanism for periodic as well as on-demand backup; and also restores data on request		
Database server has a backup interface for DVD		
Capable to hold the metering data as specified in "Schedule of Technical Data"		

12.4 Hardware:

Criteria	Pass	Fail
RAID Hard Drives(if applicable)		
At least one backup server(if applicable)		
Server Class machines(if applicable)		
Online UPS(if applicable)		
Arrangement for at least two generators(if applicable)		
At least one GSM Modem		
More than one server for load sharing(if applicable)		

12.5 Server side GSM Modem:

Criteria	Pass	Fail
Quad Band (verification through datasheet)		
SMS Capability(if applicable)		
Voice Call Capability(if applicable)		
LED Indicator		
Field Replaceable SIM		
RS232 or USB interface		

12.6 Communicator

Criteria	Pass	Fail
Supports DLMS/COSEM communication protocol		
Supports output data files as specified in DDS-105:2011(if applicable)		

12.7 Communication Modes

Criteria	Pass	Fail
Mode I (Pull at preprogrammed Interval)		
Mode I (Pull at Events & Alarms)		
Mode I (Pull on Demand)		
Mode II(GPRS always alive)		

12.8 Communication Channels




Criteria	Pass	Fail
Provision of two Programmable IP addresses		
Provision of primary and secondary IP addresses		
Provision of three Programmable GSM Numbers		

12.9 Meter Identifier

Criteria	Pass	Fail
Supports Meter Identifier		

12.10 Data Export Format

Criteria	Pass	Fail
Billing Data Export Format as per relevant specifications		
Instantaneous Data Export Format as per relevant specifications		

 ASHFAQ AHMED DY MANAGER (DE) ✓	 DR. RANA ABDUL JABBAR KHAN MANAGER (DE) ✓	 ZUBAIR MALIK CHIEF ENGINEER (D&S) ✓
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13. Annex-I: Schedule of Technical Data:

Following data is to be filled by the customer as per their requirement.

13.1. Billing Data to be transferred from meter to MDC to be filled for each meter/customer type.

S.No.	Item	Type	Required (mark Yes/No)
1	TL kWh	Billing	
2	T1 kWh	Billing	
3	T2 kWh	Billing	
4	T3 kWh	Billing	
5	T4 kWh	Billing	
6	TL kVArh	Billing	
7	T1 kVArh	Billing	
8	T2 kVArh	Billing	
9	T3 kVArh	Billing	
10	T4 kVArh	Billing	
11	TL MDI kW	Billing	
12	T1 MDI kW	Billing	
13	T2 MDI kW	Billing	
14	T3 MDI kW	Billing	
15	T4 MDI kW	Billing	
16	TL CUM MDI kW	Billing	
17	T1 CUM MDI kW	Billing	
18	T2 CUM MDI kW	Billing	
19	T3 CUM MDI kW	Billing	
20	T4 CUM MDI kW	Billing	

13.2. Instantaneous Data to be transferred from meter to MDC to be filled for each meter/customer type

S.No.	Item	Type	Required (mark Yes/No)
1	Aggregate Active power Import (KW+)	Instantaneous	
2	Aggregate Active Power Export (KW-)	Instantaneous	
3	Aggregate Reactive power Import	Instantaneous	
4	Aggregate Reactive power export	Instantaneous	
5	Voltage Phase A	Instantaneous	
6	Voltage Phase B	Instantaneous	
7	Voltage Phase C	Instantaneous	
8	Current Phase A	Instantaneous	
9	Current Phase B	Instantaneous	
10	Current Phase C	Instantaneous	
11	Average Power Factor	Instantaneous	
12	Frequency	Instantaneous	
13	Time	Instantaneous	
14	Date	Instantaneous	
15	Current Tariff	Instantaneous	
16	CT ratio Numerator	Instantaneous	
17	CT ratio Denominator	Instantaneous	
18	PT ratio Numerator	Instantaneous	
19	PT ratio Denominator	Instantaneous	
20	Customer Code	Instantaneous	

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13.3. Frequency and Duration of Data to be filled for each meter/customer type used.

S.No.	Item	Count/Frequency/Duration
1	Billing Data interval	
2	Instantaneous Data interval	
3	Number of meters/customers in this category	
4	Data to be stored inside server for how many number of months	

13.4. IT Infrastructure requirement.

S.No.	IT Infrastructure	Required from bidder (Yes/No)
1	Servers	
2	Switched Router	
3	Online UPS	
4	Reliable Internet Connection	
5	Generators	
6	Data Center Room	
7	GSM Modems	
8	Tower	
9	Others(to be specified)	

13.5. Optional Features:

S.No.	Feature Names	Required from bidder (Yes/No)
1	Wake up on SMS	
2	Wake on voice call	
3	Backup server	
4	DDS-105:2011 integration required	

13.5. Service Level Agreement (SLA):

S.No.	Feature Names
1	Meters to be integrated (specify make and model)
2	After sales support duration
3	Quantity to be integrated for each type and make of meters
4	

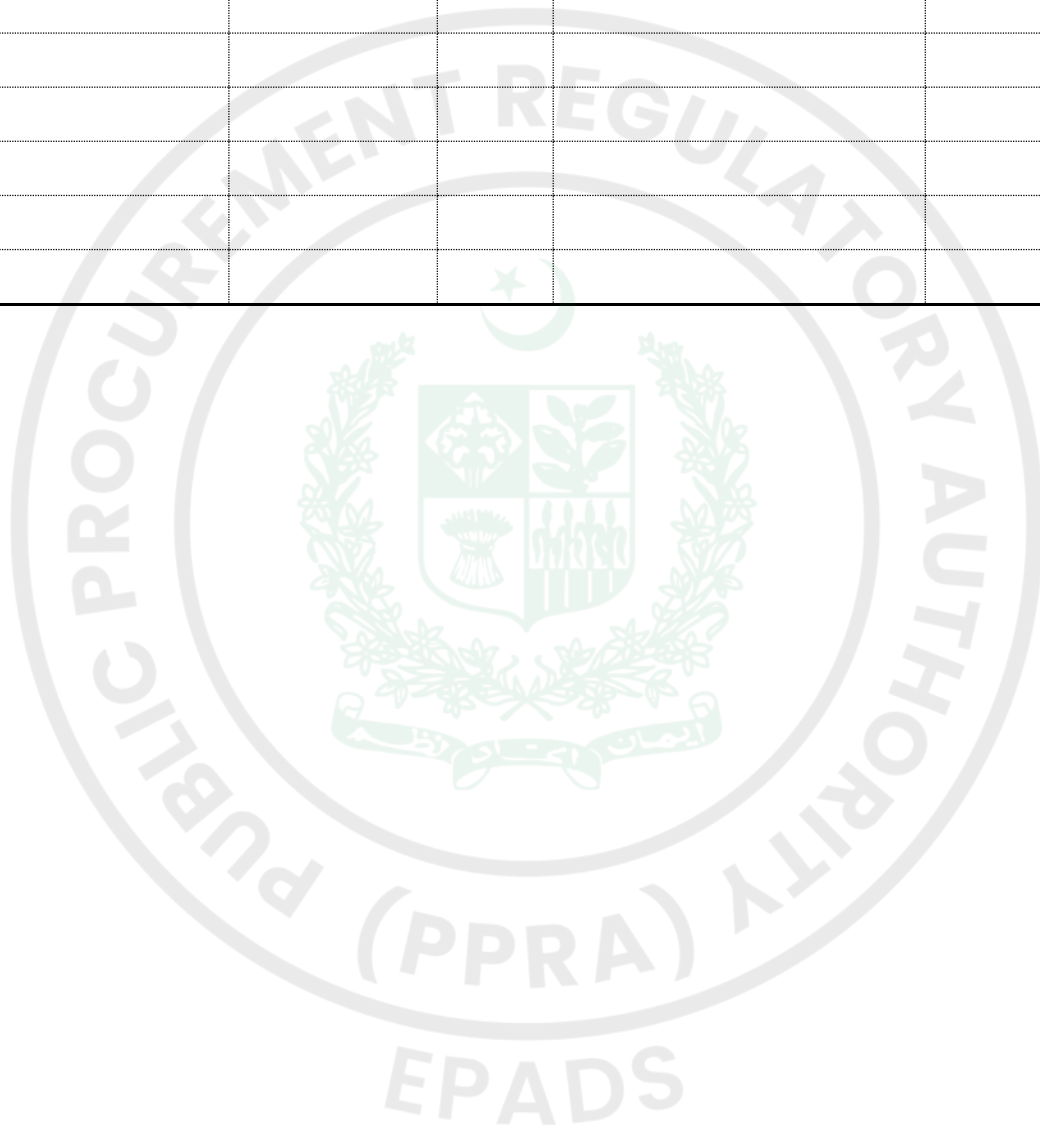
14. Annex-II Parameters list for communication verification:

S.No.	Quantity Name
1	Meter Serial Number
2	Total kWh
3	Total kvarh

Past Experience / Contracts

Contracts over *[insert amount]* during the last three years:

Procuring Agency	Value	Year	Goods/Services Supplied	Country of Destination



Historical Contract Non-Performance, and Pending Litigation and Litigation History

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

IFP No. and title: *[insert IFP number and title]*

Page *[insert page number]* of *[insert total number]* pages

<input type="checkbox"/> Not debarred due to deviation from commitment of Bid Securing Declaration- <input type="checkbox"/> Not debarred due to non-performance			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and PKR equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements			
<input type="checkbox"/> Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.3 as indicated below.			
Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), US\$ PKR Equivalent (exchange rate)

<i>[insert year]</i>	<i>[insert amount]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Agency" or "Supplier"]</i> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i></p>	<i>[insert amount]</i>
<input type="checkbox"/> No consistent history of court/arbitral award decisions in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4. <input type="checkbox"/> Consistent history of court/arbitral award decisions in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), PKR Equivalent (exchange rate)
<i>[insert year]</i>	<i>[insert percentage]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Agency" or "Supplier"]</i> Court/ arbitral award decision: <i>[Indicate if the award decision was against the Applicant or any member of a joint venture.]y]</i></p>	<i>[insert amount]</i>

Current Contract Commitments / Contracts in Progress Form

1. Name of Contract(s)
2. Procuring Agency Contact Information [insert address, telephone, fax, e-mail address]
3. Value of outstanding contracts [current PKR equivalent]
4. Estimated Delivery Date
5. Average monthly invoices over the last six months (PKR/mon.)

Financial Situation and Performance

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

IFP No. and title: *[insert IFP number and title]*

Page *[insert page number]* of *[insert total number]* pages

1. Financial data

Type of Financial information in (currency)	Historic information for previous <i>[insert number]</i> years, <i>[insert in words]</i> (amount in currency, currency, exchange rate*, PKR equivalent)				
	Year 1	Year 2	Year 3		
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

* Refer ITA 14 for the exchange rate

3. Financial documents

The Applicant and in case of JV, members of JV shall provide copies of financial statements for *[number]* years pursuant Section III, Qualifications Criteria and Requirements. The financial statements shall:

- (a) reflect the financial situation of the Applicant or in case of JV member, and not an affiliated entity (such as parent company or group member).
 - (b) be independently audited or certified in accordance with local legislation.
 - (c) be complete, including all notes to the financial statements.
 - (d) correspond to accounting periods already completed and audited.
- Attached are copies of financial statements¹ for the *[number]* years required above; and complying with the requirements.

¹ If the most recent set of financial statements is for a period earlier than 12 months from the date of Application, the reason for this should be justified.

Average Annual Turnover (Annual Sales Value)

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

IFP No. and title: *[insert IFP number and title]*

Page *[insert page number]* of *[insert total number]* pages

Annual Turnover Data			
Year	Amount Currency	Exchange rate* (If applicable)	PKR equivalent
<i>[indicate calendar year]</i>	<i>[insert amount and indicate currency]</i>		
		Average Annual Turnover **	

* Refer ITA for date and source of exchange rate.

** Total PKR equivalent for all years divided by the total number of years. See Section III, Qualification Criteria and Requirements, ITA.