



شركة توزيع الكهرباء  
Electricity Distribution Co.

THE HASHEMITE KINGDOM OF JORDAN  
**ELECTRICITY DISTRIBUTION COMPANY (EDCO)**

**Tender No.( 23/2024 )**

**Extension**

**Supply and Implementation of ERP / MDM  
(Enterprise Resource Planning / Meter Data  
Management) Solution**

**Tenderer:**

- Name: \_\_\_\_\_
- Address: \_\_\_\_\_
- Telephone/ Cellular: \_\_\_\_\_
- Fax: \_\_\_\_\_
- Website: \_\_\_\_\_
- E-Mail: \_\_\_\_\_
- Contact Person: \_\_\_\_\_

**Director General**

**Electricity Distribution Company (EDCO)**

**P.O. BOX: 830878.**

**Amman - 11183 - Jordan.**

**The Hashemite Kingdom of Jordan.**

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## **INVITATION TO TENDER**

**(23/2024)**

**Extension**

**Dear Sir,**

You are kindly requested to tender for the supply of the below mentioned materials as per the quantities and technical specifications enclosed herewith, by filling in the schedules, signing the form of tender, and forwarding the complete tender documents to the attention of **EDCO-Director General** addressed as seen on the cover page, to be **received not later than 2: 00 pm (local time) (15/ 5 /2024)**.

All bids must be accompanied with a bid bond of a value not less than **5%** of the highest alternative tender price, otherwise your tender will not be considered. The bid bond shall be enclosed in the same envelope of the tender and must be delivered to the above office **not later than 2:00 pm (local time) (15 /5 /2024)**.

- **The winning bidders/bidder shall bear the announcement costs in the local newspapers, no matter how often the announcement has been posted.**

## **GENERAL CONDITIONS**

- The below are general conditions of contract for the supply and delivery of plant and materials based on United Nations economic commission for Europe publication ref.: me/ 188 Geneva. March, 1953 And/or according to FIDIC 1999 if there is a constructions works.

### **1. Preamble**

1.1. These General Conditions shall apply, save as varied by express agreement accepted in writing by both parties.

### **1.2. Definition of Terms:**

The "**Purchaser**" shall mean "**ELECTRICITY DISTRIBUTION COMPANY.**" Hereinafter called "**EDCO**", and shall include **EDCOS** legal personal representatives and duly appointed engineers. The "**Engineer**" shall mean ". **ELECTRICITY DISTRIBUTION COMPANY** " or persons for the time being or from time to time duly appointed in writing by the purchaser to act as Engineer for the purpose of the contract.

The words "approved" and "approval" where used in these conditions or in the specification shall mean "**approved by**" and "**approval of**" the purchaser respectively. The "Vendor" shall mean the "Contractor" who's tender has been accepted by the purchaser and shall include the **Vendor's**. (Contractor's) legal personal representatives, successors and permitted assigns, "**F.O.B. Price**" shall mean the cost of the equipment delivered free on board the ship or truck or aircraft, all port charges and handling charges (also heavy lift if applicable) included .

The contractor must insure the material against all risks from the time it leaves the works until it is placed F.O.B "**CFR price**" shall mean F.O.B. price plus freight including unloading at the port of destination. All Marine Insurance will be affected by the purchaser.

**NOTE:-**The contractor must provide full details of the material to be shipped in good time for **EDCO** to arrange for Marine Insurance before the material is actually shipped.

## **2. Formation of Contract**

- 2.1. The contract shall be deemed to have been entered into when the purchaser has sent an acceptance in writing before the time set in the tender for acceptance or any such later date extended by the tenderer at the request of the purchaser.
- 2.2. Notwithstanding that the contract and correspondence in connection with the contract shall be in the English language, the contract shall be and be deemed to be a Jordan contract and shall accordingly be governed by and construed according to the laws for the time being in force in the Hashemite Kingdom of Jordan.
- 2.3. **Power to Vary The Work:** no alternations, amendments, omissions, additions, suspensions, or variations of the work, (hereinafter referred to as "variations") under the contract as shown by the contract drawings or the specification shall be made by the contractor except as directed in writing by the purchaser, but the purchaser shall have full power, subject to the provision hereinafter contained, from time to time during the execution of the contract by notice in writing to instruct the contractor to make such variation without prejudice to the contract and the contractor shall carry out such variations, and be bound by the same conditions, as far as applicable, as though they said variations occurred in the specification. If any suggested variations would, in the opinion of the contractor, if carried out, prevent him from fulfilling any of his obligations or guarantees under the contract, he shall notify the purchaser thereof in writing, and the purchaser shall decide forthwith whether or not the same shall be carried out, and if the purchaser confirms his instructions, the contractor's obligations and guarantee shall be modified to such an extent as may be justified. The difference in cost, if any, occasioned by any such variations, shall be added to or deducted from the contract price as the case may require. The amount of such difference, if any, shall be ascertained and determined in accordance with the rates specified in the schedule of prices so far as the same may be applicable, and where the rates are not contained in the said Schedule, or are not applicable they shall be settled by the purchaser and the contractor jointly.

But the purchaser shall not become liable for the payment of any charge in respect of any such variations, unless the instruction for the performance of the same shall have been given in writing by him. In the event of the purchaser requiring any variation, such reasonable a proper notice shall be given to the contractor as will enable him to make his arrangements accordingly, and in cases where goods or materials are already prepared, or any designs, drawings, or patterns made or work done that requires to be altered a reasonable sum in respect thereof shall be allowed by the purchaser. Provided that no such variations shall, except with consent in writing of the contractor, be such as will involve an increase or decrease of the total price payable under the contract by more than 25 percent thereof. The power given to the purchaser to make any alteration, amendment, omission, addition or variation to, from or in any part of the works shall include power to vary from time to time the date for the completion of the works or any part thereof, **also the purchaser shall have the absolute right to increase the quantities in such manner that the increment does not exceed the amount of 25% of the total price payable under the contract, however; the same prices awarded and any other relevant conditions shall remain the same for this purpose. This right is valid during the delivery period of the ordered material, implementation of works, or (90) days from the date of the letter of award, which is come later.**

- 2.4. **Precedence:** In the event of any discrepancy or contradiction between the provisions of the conditions of contract and of the specification, the conditions of contract shall take precedence. Furthermore in case of discrepancy between unit and total prices then unit price will be considered.
- 2.5. **Prices:** the tender calls for firm prices, unless; otherwise mentioned in the special requirements schedule.

### 3. **Drawings and Descriptive Documents**

- 3.1. The weights, dimensions, capacities, prices, performance rating and other data included in catalogues, prospectuses, circulars, advertisement, illustrated matter and price lists constitute an approximate guide. These data shall not be binding save to the extent that they are by reference expressly included in the contract.

- 3.2. Any drawings or technical documents intended for use in the construction of the material or of part thereof and submitted to the purchaser prior or subsequent to the formation of the contract remain the exclusive property of the Vendor. They may not, without the Vendor's consent, be utilized by the purchaser or copied, reproduced, transmitted or communicated to a third party. Provided, however, that the said plans and documents shall be the property of the purchaser.
- a. If it is expressly so agreed, or
  - b. If they are referable to a separate preliminary development contract on which no actual construction was to be performed and in which the property of the Vendor in the said plans and documents was not reserved.
- 3.3. Any drawings or technical documents intended for use in the construction of the material or of part thereof and submitted to the Vendor by the Purchaser prior or subsequent to the formation of the contract remain the exclusive property of the Purchaser. They may not, without his consent be utilized by the Vendor or copied, reproduced, transmitted or communicated to a third party.
- 3.4. The Vendor shall, if required by the purchaser, furnish free of charge to the purchaser at the commencement of the Guarantee Period, as defined in clause 9, information and drawings other than manufacturing drawings of the material in sufficient detail to enable the purchaser to carry out the erection, commissioning, operation and maintenance (including running repairs) of all parts of the material. Such information and drawings shall be the property of the purchaser and the restrictions on their use set out in paragraph 2 hereof shall not apply thereto. Provided that if the Vendor so stipulates, they shall remain confidential.

#### **4. Packing of the materials and shipping marks**

- 4.1. All materials, equipment and goods shall be very well packed, in seaworthy containers and/or wooden cases, etc. These should protect the material during shipping, handling, unloading for a reasonable period of storage at Aqaba and latter storage at EDCO stores.
- 4.2. Packing for indoor materials should be done in such manner as to adequately ensure no ingress of moisture, during the shipping and storage periods.

- 4.3. Packing of fragile equipment (e.g. including instruments and porcelain) should be done in a way which ensures a reasonable resistance to impact breakage during transport.
- 4.4. Packing shall in general be adequate and in compliance with the best international practice.
- 4.5. A descriptive and fully itemized list shall be prepared for the contents of each packing case. A copy of this list shall be placed in a waterproof envelope under a metal or other suitable plate and securely fastened to the outside of one end of the case. And its position adequately indicated by stenciling on the case. Where appropriate drawing showing the erection marking of the items concerned shall be placed inside the case.
- 4.6. **EDCO** will supply the successful tenderer with a drawing of its shipping mark for utilization.
- 4.7. All packing cases, crates, barrels and drums shall remain the property of the purchaser.

## **5. Inspection and Tests**

All inspections and tests of the Plant and materials shall be performed to the extent and in the manner as stipulated in the Standards specified. Type test certificates shall be submitted for all important items supplied. They shall contain all major technical particulars which are mentioned in the Technical Data Sheets.

Routine test certificates showing the results of all tests performed on the individual Plant and materials shall be furnished to the Purchaser before dispatch of such equipment. The Purchaser reserves the right to have certain tests performed in the presence of his representative or an independent testing authority. A suitable program for such inspections and tests shall be agreed upon and adequate notice (at least 21 days) shall be given when the Plant and/or materials are ready for inspection or test and every facility shall provide by the Contractor to enable the Purchaser to carry out the necessary inspections and tests. The performance of any such inspections and tests in the presence of the Purchaser and/or an



independent testing authority does not relieve the Contractor from his Contractual obligations.

## **5.1 General Inspection Requirement**

The whole of the material by the contract will be subject to inspection and testing by the engineer during manufacture and on completion. The approval of the engineer or the passing of any such inspection or test will not, however; prejudice the right of the purchaser to reject the material if it fails to comply with the specification when erected or to give complete satisfaction in service. The costs of all tests and inspection shall be borne by the contractor and shall be deemed to be included in the contract price. Before any material is packed or dispatched from the main or sub-contractor's works, all tests called for are to have been successfully carried out in presence of the engineer. Adequate notice shall be given when the material is ready for inspection or test and every facility shall be provided by the contractor and his inspection and his sub-contractors to enable the Engineer to carry out the necessary inspections and tests.

Triplicate copies of all principal test records and test certificates shall be supplied to the Engineer for all tests carried out in accordance with the provisions of the contract.

**5.1.1** If expressly agreed in the contract, the purchaser shall be entitled to have the quality of the materials used and the parts of the instruments, both during manufacture and when completed, inspected and checked by his authorized representatives.

Such inspection and checking shall be carried out at the place of manufacture during normal working hours after agreement with the Vendor as to date and time.

**5.1.2** If as a result of such inspection and checking the purchaser shall be of the opinion that any materials or parts are defective or not in accordance with the contract, he shall state in writing his objections and the reasons therefore.

**5.1.3 Sub-Contractors:** Within two months of acceptance of the tenders the contractor shall forward to the engineer a list of all sub-orders

placed or intended. The contractor shall submit three copies of all sub-orders or selected by the engineer for progress or inspection. One copy of all drawings referred to in the sub-order is to be submitted unless otherwise agreed by the engineer. The drawings and sub-orders submitted to the engineer will cover all major components which are subject to electrical and mechanical pressure or stress when the material is in operation and also auxiliaries and stores which will be dispatched to site direct from the sub-contractor's work. For the purpose of this clause inter-works orders are to be treated as sub-order. Sub-orders are to include a statement advising the sub-contractor that the items being order will be subject to inspection and test by the Engineer. It is important that all copies of such orders are clearly marked with the main contractor's name and the following reference:

**ELECTRICITY DISTRIBUTION COMPANY. CONTRACT No. (23/2024)**

Sub-Contractors are to comply with all the applicable requirements of this specification. Orders issued by the sub-contractor are also to include the main contractor's reference on their sub-order in addition to the above-mentioned heading.

## 5.2 **TESTS:**

All tests should meet the requirements of latest international standard mentioned in the contract or any relevant standard

5.2.1 Acceptance tests will be carried out and, unless otherwise agreed, will be made at the Vendor's works and during normal working hours. If the technical requirements of the tests are not specified in the contract, the tests will be carried out in accordance with the general practice obtaining in the appropriate branch of the industry in the country where the material is manufactured.

5.2.2 The Vendor shall give to the purchaser sufficient notice of the tests to permit the purchaser's representatives to attend. If the purchaser is not represented at the tests, the tests report shall be communicated by the Vendor to the purchaser and shall be accepted as accurate by the purchaser.

5.2.3 If on any test (other than a test site, where test on site are provided for in the contract) the material shall be found to be defective or not in accordance with the contract, the Vendor shall with all speed make good the defect or ensure that the plant complies with the contract. Thereafter, if the purchaser so requires, the test shall be repeated.

5.2.4 Unless otherwise agreed, the Vendor shall bear all the expenses of tests carried out in his works.

5.2.5 If the contract provides for tests on site, the terms and conditions governing such tests shall be such as may be specially agreed between the parties

5.2.6 **Material Tests:** The contractor shall provide test pieces as required by the engineer to enable him to determine the quality of the material supplied free of charge and any cost of the tests shall be borne by the contractor. If any test piece fails to comply with the requirements of the appropriate specifications for the material in question, the engineer may reject the whole of the material represented by that piece, the contractor's designers and

Metallurgists will be consulted before any material is so rejected. In

the event of the engineer being furnished with the certified particulars of the tests which have been carried out for the contractor by the suppliers of the material, he may, at his own discretion, dispense with the previously mentioned tests entirely.

**5.2.7 Tests at Manufacture's Works:** Works tests shall include all routine, electrical, mechanical and hydraulic tests in accordance with the relevant IEC standard or other standard may be approved except where departures there from and modifications thereto are embodied in this specification. For material not covered by an IEC or British standard or specifically mentioned in this specification the tests shall be agreed with the Engineer. After satisfactory completion of the witnessed tests at the works, the material shall be submitted for the engineer's approval preparatory to shipping. No item of material is to be dispatched to site until the Engineer has given his approval in writing.

**5.2.8 Test Certificates:** Triplicate sets of all principal test records test certificates and performance curves shall be supplied for all tests carried out in accordance with the provisions of this contract. These test records, certificates and performance curves shall be supplied for all tests, whether or not they have been witnessed by the engineer. The information given in such test certificates and curves shall be sufficient to identify the material or equipment to which the certificates refers and should also bear the contract reference and heading as given in clause 7.2 of this section.

**5.2.9 Rejection of the materials:** If Any item of material or component which fails comply with the requirements of this specification in any respect whatsoever at any stage of manufacture, test, erection or on completion at site may be rejected by the engineer either in whole or in part as he considers necessary, and after adjustment or modification if so directed by the Engineer, the contractor shall submit the item for the item for the further inspection and / or test.

In the event defects of such a nature that the requirements of this specification cannot be fulfilled by adjustment or modification shall be replaced by the contractor, at his own expense, to the entire satisfaction of the engineer.

### **5.3 Maintenance:**

The contractor must submitted maintenance bond equal to (5%) of the Order amount to guarantee the efficient and good working of the material supplied under the contract for a period of 12 months (Gregorian) from the date of delivery of the material to EDCO SORES in accordance with the General conditions of contract.

## **6. Passing of Risk**

Save as provided in paragraph 7.6, the time at which the risk shall pass shall be fixed in accordance with the International Rules for the Interpretation of Trade Terms (Incoterms) of the International Chamber of Commerce in force at the date of the formation of the contract.

## **7. Delivery:**

- 7.1. Unless otherwise agreed the delivery period shall run from the latest of the following dates:
  - a. The date of the formation of the contract as defined in clause 2.
  - b. The date on which the Vendor receives notice of the issue of a valid import license where such is necessary for the execution of the contract.
  - c. The date of the receipt by the Vendor of such payment in advance of manufacture as stipulated in the contract.
- 7.2. Should delay in delivery be caused by any of the circumstances mentioned in clause 10 or by an act or omission of the purchaser and whether such cause occur before or after the time or extended time for delivery, they shall be granted subject to the provisions of paragraph 5 hereof such extension of the delivery period as is reasonable having regard to all the circumstances of the case.
- 7.3. If a fixed time for delivery is provided for in the contract and the Vendor fails to deliver within such time or any extension thereof granted under paragraph 2 hereof, the purchaser shall be entitled, on giving to the Vendor within a reasonable time notice in writing, to

**Claim a deduction of the price payable under the contract. Such deduction shall be calculated at the rate of one half of one percent (0.5%) of that part of the price payable under the contract which is properly attributable to such portion of the plant as cannot in consequence of the said failure be put to the use intended for each complete week of delay commencing on the due date of delivery, but shall not exceed a maximum percentage deduction of ten percent.** Such deduction shall be allowed when a payment becomes due on or after delivery. Save as provided in paragraph 5 hereof, such deduction of price shall be to the exclusion of any other remedy of the purchaser in respect of the Vendor's failure to deliver as aforesaid.

- 7.4. If the time for delivery mentioned in the contract is an estimate only, either party may after the expiration of two thirds of such estimated time require the other party in writing to agree a fixed time. Where no time for delivery is mentioned in the contract, this course shall be open to either party after the expiration of six months from the formation of the contract. If in either case the parties fail to agree, either party may have recourse to arbitration, in accordance with the provisions of clause 13, to determine a reasonable time for delivery and the time so determined shall be deemed to be the fixed time for delivery provided for in the contract and paragraph 3 hereof shall apply accordingly.
- 7.5. If any portion of material in respect of which the purchaser has become entitled to the maximum deduction provided for by paragraph 3 hereof, or in respect of which he would have been so entitled had he given the notice referred to therein, remains undelivered, the purchaser may by notice in writing to the Vendor require him to deliver and by such last mentioned notice fix a final time for delivery which shall be reasonable taking into account such delay as has already occurred.
- 7.6. If for any reason whatever the Vendor fails within such time to do everything that he must do to effect delivery, the purchaser shall be entitled by notice in writing to the Vendor, and without requiring the consent of any court, to terminate the contract in respect of such portion of the material and thereupon to recover from the Vendor any amount not exceeding that part of the price payable under the Contract which is

properly attributable to such portion of the material as could not in consequence of the Vendor's failure be put to the use intended.

- 7.7. If the purchaser fails to accept delivery on due date, he shall nevertheless make any payment conditional on delivery as if the material had been delivered. The Vendor shall arrange for the storage of the material at the risk and cost of the purchaser. If required by the purchaser, the Vendor shall insure the material at the cost of the purchaser. Provided that if the delay in accepting delivery is due to one of the circumstances mentioned in clause 10 and the Vendor is in a position to store it in his premises without prejudice to his business, the cost of storing the material shall not be borne by the purchaser.
- 7.8. Unless the failure of the purchaser is due to any of the circumstances mentioned in clause 10, the Vendor may require the purchaser by notice in writing to accept delivery within reasonable time. If the purchaser fails for any reason whatever to do so within such time, the Vendor shall be entitled by notice in writing to the purchaser, and without requiring the consent of any court, to terminate the contract in respect of such portion of the material as is by reason of the failure of the purchaser aforesaid not delivered and thereupon to recover from the purchaser any loss, suffered by reason of such failure up to an amount not exceeding the value of the material, the delivery of which has not been accepted.
- 7.9. If the winner contractor in the tender, refrained for supply the material or execution of works which award for him or failed to execute the contract on the limited time, or failed to replace the rejected material or works in another applying materials on his account, the tenders committee which take its previous design to award the tender for this supplier has the right to Confiscation the bid bond or the performance bond or part of them as commensurate with the material & works value.
- 7.10. If refrained bidder to comply with his offer or did not complete the necessary contract and signing of the purchase order and did not submitted the performance bond within 15 days from the date of the order, the tender s committee has the right to confiscated the bid bond.

## **Force Majeure**

- Notwithstanding the provisions of clauses 7, the supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.
- For purposes of this clause, "Force Majeure" means an event beyond the control the supplier not involving the supplier's fault or negligence. Such events may include, but are not restricted to, acts to the purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes.
- If a Force Majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall all reasonable alternative means for performance not prevented by the Force Majeure event.



## 8. Payment:

### 8.1. **Terms of Payment:**

Subject to any deduction which the purchaser may be authorized to make under the contract or subject to any additions or deductions provided for under clause 2-3 above, The Company (EDCO) prefers to deal with the supplier on an **open account basis**, and the payment to be made as the following:

a. (10%) of the CFR contract value (as shown by the supplier's invoice/contractor invoice) on receipt of the following **legalized shipping** documents by EDCO:

- (Original Invoice + five copies)
- (Certificate of origin + five copies)
- (Bill of lading 3-negotiable + 5 non-negotiable)
- (Test certificate (where applicable) + 6 copies).
- 

**The original shipping documents must arrive to EDCO or to our bank before (5) days at least prior the materials arrival.**

b. (80%) of the invoice value to be paid within 60 days of Receipt of EDCO's certificate of acceptance, Receipt of goods at EDCO stores.

c. (10%) of the contract value within 60 days from expiration of the guarantee period.

If the bidder insists on L/C (letter of credit) as a method of payment, all L/C charges will be on his own expense, in all respects all banking charges are at vendor account, the terms will be as follows:

a. The L/C will be confirmed and irrevocable but has to be **acceptance** L/C, and the supplier has to send the following **legalized shipping** documents:

- (Original Invoice + five copies),
- (Certificate of origin + five copies),
- (Bill of lading 3-negotiable + 5 non-negotiable),
- (Test certificate (where applicable) + 6 copies).
- (Release of shipment (where applicable) – fax copy is accepted).

b. Payment will be released after submitting EDCO's certificate of acceptance to the bank within (30) days after receipt of goods at EDCO's stores.

In the case of a Jordanian Supplier (materials are delivered from local companies), payment will be made through presentation of the invoice as following:

- a. (90%) of the contract value to be paid within 30 days from date of receipt and acceptance of the materials at our EDCO stores.
- b. (10%) of the contract value within 30 days from expiration of the guarantee period (one year from the date of receipt and acceptance of the materials at EDCO stores)

**NOTE:**

- In case the supplier has better terms of payment than those mentioned above the purchaser will discuss such terms.
- Any deviation on the payment methods mentioned above, will negatively affect the evaluation of tenderer's offer.
- In case the payment by acceptance L/C, The performance bond should be valid for a period expiring at least one year after receipt of the last consignment in EDCO stores.
- EDCO has the right to request an additional bank guarantee equal to (5%) five percent to cover the guarantee period.

**Currency of Payment:** The contract price will normally be paid in the currency or currencies in which the price has been stated. The purchaser, however, reserves the right to make payments in the currencies of the countries of origin of goods and services at the exchange rates applicable at the time of payment of the contract price.

**Shipping documents shall comprise the following documents: -**

- 1) **Invoices** – one original, five copies.
- 2) **Shipping specification (packing list)** – six copies.
- 3) **Certificate of origin** – one original, five copies.
- 4) **Bill of lading** – 3 three negotiable, five non-negotiable.
- 5) **Test certificates (where applicable)** – six copies.
- 6) **Release of shipment (where applicable)** – fax copy is accepted.
- 7) **EDCO's Certificate of Acceptance** - fax copy is accepted

- 8.2. Any advance payments made by the Purchaser are payments on account and do not constitute a deposit, the abandonment of which would entitle either party to terminate the Contract.
- 8.3. If delivery has been made before payment of the whole sum payable under the Contract, plant delivered shall, to the extent permitted by the law of the country where the plant is situated after delivery, remain the property of the Vendor until such payment has been effected. If such law does not permit the Vendor to retain the property in the plant, the Vendor shall be entitled to the benefit of such other rights in respect thereof as such law permits him to retain. The Purchaser shall give the Vendor every assistance in taking any measures required to protect the Vendor's right of property or such other rights as aforesaid.
- 8.4. A payment conditional on the fulfillment of an obligation by the Vendor shall not be due until such obligation has been fulfilled, unless the failure of the Vendor is due to an act or omission of the Purchaser.
- 8.5. If the Purchaser delays in making any payment, the Vendor may postpone the fulfillment of his own obligations until such payment is made, unless the failure of the Purchaser is due to an act or omission of the Vendor.
- 8.6. If delay by the Purchaser in making any payment is due to one of the circumstances mentioned in clause 10, the Vendor shall not be entitled to any interest on the sum due.
- 8.7. Save as aforesaid, if the Purchaser delays in making any payment, the Vendor shall on giving to the Purchaser within a reasonable time notice in writing be entitled, and without requiring the consent of any Court, to terminate the Contract and thereupon to recover from the Purchaser the amount of his loss up to the value of the plant, the payment for which has been unreasonably delayed.

## 9. **Guarantee:**

- 9.1. Subject as hereinafter set out; the Vendor undertakes to remedy any defect resulting from faulty design, materials or workmanship.
- 9.2. This liability is limited to defects which appear during the period (Hereinafter called the Guarantee Period) of **fifteen** months from date of dispatch ex-works or twelve months from the date of accepting the Materials at EDCO stores whichever shall be later.

Or in case of turn key projects eighteen months from the date of setting to work.

- 9.3. In fixing this period due account has been taken of the time normally required for transport as contemplated in the contract.
- 9.4. In respect of such parts (whether of the Vendor's own manufacture or not) of the material as are expressly mentioned in the contract, the Guarantee Period shall be such other period (if any) as is specified in respect of each of such parts.
- 9.5. The Guarantee period is based on the continuous use of the plant in services for 24 hours every day.
- 9.6. A fresh Guarantee Period equal to that stated in paragraph 2 hereof shall apply, under the same terms and conditions as those applicable to the original material, to parts supplied in replacement of defective parts or to parts renewed in pursuance of this clause. This provision shall not apply to the remaining parts of material, the Guarantee Period of which shall be extended only by a period equal to the period during which the material is out of action as result of a defect covered by this clause.
- 9.7. In order to be able to avail himself of his rights under this clause the purchaser shall notify the Vendor in writing without delay of any defects that have appeared and shall give him every opportunity of inspecting and remedying them.
- 9.8. On receipt of such notification the Vendor shall remedy the defect forthwith and at his own expense. Save where the nature of the defect is such that it is appropriate to effect repairs on site, the purchaser shall return to the Vendor any part in which a defect covered by this clause has appeared, for repair or replacement by the Vendor, and in such case the delivery to the purchaser of such part properly repaired or a part in replacement thereof shall be deemed to be a fulfillment by the Vendor of his obligations under this paragraph in respect of such defective part.
- 9.9. The Vendor shall bear all the costs and risks of the transport of defective parts or equipment's and their replacements.
- 9.10. Where, in pursuance of paragraph 9 hereof, repairs are required to be effected on site, the conditions covering the attendance of the Vendor's representatives on site shall be such as may be specially agreed between

the parties.

- 9.11.** Defective parts replaced according to this clause shall be placed at the disposal of the Vendor.
- 9.12.** If the Vendor refuses to fulfill his obligations under this clause or fails to proceed with due diligence after being required so to do, the purchaser may proceed to do the necessary work at the Vendor's risk and expense, provided that he does so in a reasonable manner.
- 9.13.** The Vendor's liability does not apply to defects arising out of materials provided, or out of a design stipulated, by the purchaser.
- 9.14.** The Vendor's liability shall apply only to defect that appears under the conditions of operation provided for by the contract and under proper use. It does not cover defects due to causes arising after the risk in the material has passed in accordance with clause 6. In particular it does not cover defects arising from the purchaser's faulty maintenance or erection, or from alterations carried out without the Vendor's consent in writing, or from repairs carried out improperly by the purchaser, nor does it cover normal deterioration.
- 9.15.** Save as in this clause expresses, the Vendor shall be under no liability in respect of defects after the risk in the material has passed in accordance with clause 6, even if such defects are due to causes existing before the risk so passed. It is expressly agreed that the purchaser shall have no claim in respect of personal injury or of damage to property not the subject matter of the contract or of loss of profit unless it is shown from the circumstances of the case that the Vendor has been guilty of gross misconduct.
- 9.16.** All defective and/ or not complying materials shall be  
Evacuated from  
EDCO stores within a maximum of one month by the vender from the date of notifying him. All costs and expenses of transportation shall be borne by the vendor. Unless otherwise agreed.  
Otherwise; EDCO has the right to deal with the defective materials in a proper way.
- 9.17.** Gross misconduct "does not comprise any and every lack of proper care or skill, but means an act or omission on the part of the Vendor implying

either a failure to pay due regard to serious consequences which a conscientious contractor would normally foresee as likely to ensue, or a deliberate disregard of any consequences of such act or omission.

## **10. Relief**

- 10.1.** The following shall be considered as cases of relief if they intervene after the formation of the contract and impede its performance: industrial disputes, and any other circumstances (e.g. fire, mobilization, requisition, embargo, currency restrictions, insurrection, shortage of transport, general shortage of materials and restrictions in the use of power) when such other circumstances are beyond the control of the parties.
- 10.2.** The party wishing to claim relief by reason of any of the said circumstances shall notify the other party in writing without delay on the intervention and on the cessation thereof.
- 10.3.** The effects of the said circumstances so far as they affect the timely performance of their obligation by the parties, are defined in clauses 7 and 8. Save as provided in paragraph 7.5, 7.7, and 8.7, if by reason of any of the said circumstances, the performance of the contract within a reasonable time becomes impossible, either party shall be entitled to terminate the contract by notice in writing to the other part without requiring the consent of any court.
- 10.4.** If the contract is terminated in accordance with paragraph 3 hereof, the division of the expenses incurred in respect of the contract shall be determined by agreement between the parties.
- 10.5.** In default of agreement it shall be determined by the arbitrator which party has been prevented from performing his obligations and that party shall bear the whole of the said expenses.

Where the purchaser is required to bear the whole of the expenses and has before termination of the contract paid to the Vendor more than the amount of the Vendor's expenses, the purchaser shall be entitled to recover the excess. If the arbitrator determines that both parties have been prevented from performing their obligation, he shall apportion the said expenses between the parties in such manner as to him seems fair and reasonable, having regard to all the circumstances of the case.

- 10.6. For the purposes of this clause "expenses" means actual out of pocket expenses reasonably incurred, after both parties shall have mitigated their losses as far as possible. Provided that as respects material delivered to the purchaser the Vendor's expenses shall be deemed to be that part of the price payable under the contract which is properly attributable thereto.

**11. Limitation of Damages:**

- 11.1. Where either party is liable in damages to the other these shall not exceed the damage which the party in default could reasonably have foreseen at the time of the formation of the contract.
- 11.2. The party who sets up a breach of the contract shall be under a duty to take all necessary measures to mitigate the loss which has occurred provided that he can do so without unreasonable inconvenience or cost. Should he fail to do so, the party guilty of the breach may claim a reduction in the damages.

**12. Rights at Termination:**

Termination of the contract from whatever cause arising shall be without prejudice to the rights of the parties accrued under the contract up to the time of termination.

**Arbitration and Law Applicable:**

- 13.1. If Any dispute, question or controversy shall arise between the purchaser and the contractor concerning this contract the matter in dispute shall be referred to an arbitration committee composed of three (3) arbitrators
- 13.2. One arbitrator shall be nominated by the purchaser and one by the contractor, and the third arbitrator shall be appointed by both parties.
- 13.3. If either party fails to appoint his arbitrator within one month of the appointment of the arbitrator by the other party, or if the two parties fail to agree on the third arbitrator within two months of the date of the request to refer the dispute to arbitration, such arbitrator shall be appointed by the president of the highest court in Jordan at the request of either or both parties.

**13.4.** The decision of the arbitrators shall be final and binding on both the purchaser and the contractor. Any such reference shall conform to the statutory enactment or regulation governing arbitration as may be in force in Jordan at the time. The assessment of costs incidental to the reference and award respectively shall be at the discretion of the arbitration committee.



## **TENDERING INSTRUCTIONS**

1. The Tender shall be made in one copy of the accompanying form; however, all blanks and schedules shall be filled up in ink, and signed without alteration to the form of tender. If any such alteration were made, or if these Instructions were not fully complied with, the tender may be rejected. The tenderer; however, is at liberty to add any further details that he may deem desirable and, in the event of his so doing, shall print or type such details and annex the added matter to the tender submitted by him. Such additional details shall not be binding upon the purchaser unless they shall be subsequently incorporated in the contract.
2. One copy of the tender, and its accompanying documents, filled up as directed, together with the drawings, catalogs, and relevant documents called for, must be enclosed in a secure envelope endorsed **(Tender for Contract No. (23/2024))**.
3. All correspondences in connection with this tender and all matters accompanying the tender that are relevant to its examination shall be in English language and expressed in metric units.
4. The tender is to be held open for acceptance or rejection for a validity period of (90) days from the time fixed for opening the tenders.
5. Tenders received prior to the time fixed for opening of tenders will be securely kept, unopened. Tenders received after that time will be rejected. The purchaser bears no responsibility for premature opening of tenders not properly addressed or identified.
6. Tenders may be withdrawn by formal request received in writing from the tenderer prior to the time fixed for opening. If for any reason the tender should be withdrawn after the time fixed for opening and before expiry of the said validity period, the purchaser has the right to retain the full value of the tender bond.
7. The successful tenderer shall abide by the commercial and professional regulations as required by the Ministry of Industry & Trade, Engineering Association and other relevant Institutions in Jordan.

8. Tenderers attention is drawn to the action of customs officers in the discharge of their duties. Whereby air parcels are frequently opened In their own interests and in order to preserve the confidential nature of the tender price, tenderers are urged to pay attention to the:
  - a. To dispatch the completed tender document and any covering letter only by Air Mail which should be endorsed and labeled in the manner laid down in paragraph 10 of the Instructions to Tendering.
  - b. Technical literature and the like may reasonably be sent by Air Parcel or Air Freight but since this would then be separated from the actual Tender, each parcel should contain specific evidence identifying the Tender to which the contents refer.
  - c. The purchaser will not consider late or incompletely delivered tenders or literature supporting tenders due to the action of any customs officer.
9. In the event that the intending signatory does not manufacture one or more of the main sections of equipment and materials, then the tender submitted should give evidence to show that all the obligations imposed by the documents on the intending signatory have been fully understood and accepted, where applicable, by the manufacturer(s) to whom it would be intended to sub-contract one or more of the main sections of the equipment and materials.
10. For overseas transport of the contractor and his Sub-contractors, suppliers and manufactures must give priority to Jordan shipping national lines, and to Arab shipping companies and their subsidiaries for the shipping of goods, materials provided such companies ships call at the port of export. The contractor shall also give priority to the Royal Jordanian Airlines for air freight shipment and transport of personnel.
11. Tenderer must submit country of origin and name of manufacturer for the offered goods.
12. The foreign bidders who participate in this tender must submit their bids through a registered local agent or through their registered office in Jordan.
13. For all manufacturers from inside Jordan it is quite essential that they have JQM for their products and the purchaser will have the right to accept or reject their offer if they did not submitted the JQM certificate with their offer.

14. If samples were not re-claimed by the tenderer within one month from date of order all samples shall remain the property of the purchaser.
15. The purchaser will not be responsible for, nor to pay for, any expenses or losses which may be incurred by a tenderer in the preparation of his tender.
16. If the tenderer has any doubt about the meaning of any portion of the General Conditions, Specifications, Drawings, he shall clarify such doubts before submitting his tender, or in case of any further information can be obtained by an application in writing to the director general.
17. Tenderers are particularly directed that the amount entered on the form of tender shall be a fixed price for performing the contract strictly in accordance with the bound document, and shall be the sum total of all the amounts printed into and entered by the tenderer upon the schedule of prices.
18. Tender price shall include all incidental and contingent expenses.
19. The tender shall be accompanied by a tender bond in the form of a Bank Guarantee valid for at least 90 days from the time fixed for opening the tenders or certified check in favor of and payable to the purchaser for a sum of **5% Of Your Offer** \_\_\_\_\_ as a guarantee of good faith. This bond is to be issued by any approved bank in Jordan. The bond will be returned to the unsuccessful tenderer within (90) days from the time fixed for opening the tenders or at such earlier time as a tender shall have been accepted by the purchaser. In the case of the successful tenderer, the bond will, subject to the conditions of contract, be returned as soon as a formal contract agreement and a performance bond have been entered into.
20. The successful tenderer has to submit a performance bond equal to (10%) ten percent of the total amount of the order within (15) days from date of receipt of the order. Any delay will be subject to delay penalty.

If the successful tenderer fails for any reason to submit the required performance bond within (15) days, the purchaser will confiscate the bid bond and the awarding letter will be cancelled too.
21. The performance bond should be valid for a period; expiring at least one month after receipt of the last consignment in EDCO stores.

22. The tenderer shall state in his tender the name or names of the sureties, insurance company, or bank proposed for guaranteeing the performance of the contract.
23. Prices are highly recommended to be on the basis of C&F EDCO STORES. However CFR Aqaba port or Amman customs are also accepted. All prices offered shall be exempted from custom duties, sales taxes, import license fees and any other tariffs.
24. The tenderer may state the tender price in Jordanian Dinars. If however, a portion of the tenderer's expenditure under the contract is expected to be made in countries other than Jordan he may state a corresponding foreign currency portion of the tender price in the currencies of those other countries.
25. Stamp duty and award fees are payable on Jordanian contracts according to Jordanian laws and, after the placing of a contract, it is the contractor's responsibility to purchase legal stamps to the requisite amount depending on the contract value.
26. If after receipt of tenders, the purchaser finds any difference between prices shown on the form of tender in writing and in numerals, then the price shown in writing shall be considered correct by the purchaser and the tenderer. If any discrepancies are found between the total in the price schedule and the total obtained by adding the products of each quantity and its particular rate then, whether the price shown on the form of tender in numerals or in writing corresponds or not, the total obtained by adding the products of the quantities and their particular rates shall be considered by the purchaser and the tenderer as the tender price.
27. Tender evaluation will be consistent with the terms and conditions set forth in the tender document. In addition to the tender price adjusted to correct arithmetical errors, other relevant factors such as the time of completion of delivery or construction, operating costs where applicable, or the efficiency and compatibility of the equipment, the availability of service and spare parts, and reliability of construction methods proposed will be taken into consideration, to the extent and in the manner specified in the tender documents, in determining the evaluated tender most advantageous to the purchaser. For comparison of all tenders, the currency or currencies of the tender price for each tender will be valued in terms of Jordanian Dinars. The

rates of exchange to be used in such valuation will be the selling rates published by the CENTRAL BANK OF JORDAN and applicable to similar transactions, on the day tenders are opened unless there should be a change in the value of the currencies before the award is made. In the latter case, the exchange rates prevailing at the time of the decision to notify the award to the successful tenderer may be used.

28. The purchaser does not bind himself to accept the lowest offers of any tender, nor to assign any reason for the rejection of any tender, nor to purchase the whole of the equipment and materials specified. The purchaser has the right to purchase part of the tender, even if it is only one item from the schedule of rates and prices.
29. The tenderer shall submit with his tender in order of the relevant clauses, a statement of any departures from specifications, or he can fill in the related schedule attached herewith. Notwithstanding any description, drawings, or literature which may be submitted, all details other than those in the statement of departures shall be assumed to be in accordance with the specification.
30. Although IEC standards for workmanship, equipment and materials, have been selected in this specification as a basis of reference, standards and specifications of other countries and recommendations of other international standard organizations will be acceptable provided that they are substantially equivalent to the designated standards and provided

Further that the tenderer submits for approval detailed specification which he proposes to use.

31. References to brand names or catalog numbers, if any, in this specification have been made only for that equipment for which it has been determined that a degree of standardization is necessary to maintain certain essential features. In certain instances such references have also been made for purpose of convenience to specify the requirements. In either case offers of alternative goods which have similar characteristics and provide performance and quality at least equal to those specified are acceptable.
32. Where compliance with a specific standard specification is called for the standard specification used shall be that in force at the time of tender.
33. The Tenderer should submit a type test certificate from independent testing laboratory similar to the Tender materials as an evidence of his capability to

manufacture such materials also to submit a reference list showing his past supply and he should prove that he supplied similar materials to more than one firm and operated for more than 3 years without problems otherwise his offer will not be considered.

34. A nonrefundable fee of (550) JD will be charged for each set comprising one copy of the Tender Documents.

## **TENDER AGREEMENT SUMMARY**

**Tender No. (23/2024)**

**Dear Sir;**

1. Having examined the conditions of Contract, specification and schedule for the above Works, the undersigned, offer to manufacture, supply, work, test, and deliver the said works described in the specification and schedules and in accordance with the said conditions of contract, for the sum of \_\_\_\_\_ or such other sum as may be ascertained in accordance with the said conditions.
2. We agree that this tender shall be held open for acceptance or rejection for the validity period of **(90) days** from the date fixed for opening tenders and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
3. Unless and until a formal agreement is prepared and executed, this tender, together with your written acceptance thereof, shall constitute a binding contract between us.
4. If our tender is accepted, we will deliver to **ELECTRICITY DISTRIBUTION COMPANY**. Within **(15) days** of being called upon to do so a performance bond by bank or insurance company (to be approved in either case by the purchaser) to be jointly and severally bound with us in a sum equal to **10%** of the value of the contract. The form of the performance bond will be as attached hereto. We propose the following Bank or insurance company as surety (or sureties) in this respect:-.....

5. We undertake if our tender is accepted and on receipt of your acceptance to commence and manufacture, works test, and complete for delivery **ex-works** the whole of the Works offered within (——) weeks calculated from the date of **Order Letter Awarding**, and to deliver on the dock at (—— port) - Jordan the whole of the works offered within a further (—— weeks, or to **EDCO stores** within a further (——) weeks.
6. We undertake to insure the materials against all risks from the time they leave the works until they are placed on board ship. We understand that marine insurance will be affected by **ELECTRICITY DISTRIBUTION COMPANY**. And we will provide details of the materials to be shipped in good time for **ELECTRICITY DISTRIBUTION COMPANY** to arrange for the said marine insurance.
7. A guarantee Period will apply to each section of the works of 15 months from the date of dispatch ex-works or 12 months from the date of setting to work whichever shall be later.
8. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this ——— day of / / 2024.

Signature———— in the capacity of————

Duly authorized to sign Tender for and on behalf of ———

ADDRESS ——— OCCUPATION ———

**ELECTRICITY DISTRIBUTION COMPANY.**

**Form of Bid Bond**

**Tender No. (23/2024)**

**Dear Sir,**

We are pleased to inform you that we guarantee  
M/S \_\_\_\_\_for the amount  
of \_\_\_\_\_in order to allow them to submit an offer  
for the due performance of the undertaking and obligation as specified in their  
Tender for Contract No. \_\_\_\_\_This Guarantee shall remain valid for a  
period of **(90)** days from the time fixed for opening the Tenders by  
**ELECTRICITY DISTRIBUTION COMPANY.**

This Guarantee shall be free from any interest and will be extended or paid in cash upon your first request in any or required, without the need for natural warning or judicial proceedings and without any rights to delay, oppose, or stop payment on our part, or on the part of the Tenderer or any of his representatives whomever.

This Guarantee shall be deemed valid until the submittal of a duly executed Performance Bond.

***Signed \_\_\_\_\_ Bank (Surety)***



**ELECTRICITY DISTRIBUTION COMPANY.**

**Form of Performance Bond**

**Tender No. (23/2024)**

**Dear Sirs,**

At the request of \_\_\_\_\_ bank (the Foreign Bank)  
and on behalf of M/S \_\_\_\_\_  
(Contractor's Name and Address), we \_\_\_\_\_ Bank (the  
Local Bank) issue in your favor our irrevocable and unconditional Performance  
Bond No. \_\_\_\_\_ in the amount of \_\_\_\_\_  
\_\_\_\_\_(In \_\_\_\_\_ words), in this connection we  
\_\_\_\_\_ Bank (the Local Bank) hereby consider  
ourselves responsible forth unconditional payment to you or to your authorized  
representatives of the above sum on your first written demand in whole or in  
part notwithstanding any objections on the part of the above named contractor  
and without any need for natural warning or judicial proceedings.

This Bond will expire on \_\_\_\_\_ and shall be renewed automatically for  
a period of \_\_\_\_\_ months and for consecutive similar periods until it is  
returned by you to us.

***Signed \_\_\_\_\_ Bank (Surety)***

**ELECTRICITY DISTRIBUTION COMPANY.**

**Form of Maintenance Bond**

**Tender No. (23/2024)**

**M/S. ELECTRICITY DISTRIBUTION CO. (EDCO)  
Amman – Jordan**

At the request of \_\_\_\_\_ Bank ( the foreign bank ) and on behalf of M/S : \_\_\_\_\_ ( The Contractor name and address ), we \_\_\_\_\_ Bank (the local bank) issue in your favor our irrevocable and unconditional maintenance bond No.(\_\_\_\_\_ ) in the amount of \_\_\_\_\_ (In words) valid until \_\_\_\_\_ covering \_\_\_\_\_ PCT value of the \_\_\_\_\_ (Contract No. Name), in this connection we the \_\_\_\_\_ Bank (local bank ), hereby consider ourselves responsible for the unconditional payment to you or your authorized representatives of the above sum on your first written demand in whole or in part notwithstanding any objections on the part of the above named Contractor and without any need for notarial warning or judicial proceedings.

This bond will expire on \_\_\_\_\_and shall be renewed automatically for a period of (\_\_\_\_\_) months and for consecutive similar periods until it is returned by you to us.

***Signed \_\_\_\_\_ Bank (Surety)***

# **ELECTRICITY DISTRIBUTION COMPANY (EDCO)**

**Tender No. 23/2024**

**Terms of Reference for Supply and  
Implementation of ERP / MDM (Enterprise  
Resource Planning / Meter Data Management)  
Solution tender for Electricity Distribution  
Company (EDCO) in Jordan.**

Version 1.0  
February 2024

Director General  
Electricity Distribution Company (EDCO)  
P.O. BOX: 830878.  
Amman – 11183 – Jordan.  
The Hashemite Kingdom of Jordan

## Disclaimer

This TENDER is for the Supply and Implementation of Enterprise Resource Planning (ERP) and Meter Data Management (MDM) Systems in the Electricity Distribution Company (referred to in the document as EDCO) in the Hashemite Kingdom of Jordan.

The information contained in this TENDER or subsequently provided to Bidders, whether verbally or in documentary or any other form by or on behalf of EDCO or any of its employees or advisers, is provided to Bidders on the terms and conditions set out in this TENDER and such other terms and conditions subject to which such information is provided.

This TENDER is not an agreement or an offer by EDCO to the prospective Bidders or any other person. The purpose of this TENDER is to provide interested parties with information that may be useful to them in the formulation of their Proposals pursuant to this TENDER.

This TENDER includes statements, which reflect various assumptions and assessments arrived at by EDCO in relation to the ERP / MDM supply and Implementation project. Such assumptions, assessments, and statements do not purport to contain all the information that each bidder may require.

TENDER may not be appropriate for all persons, and it is not possible for EDCO, its employees, or advisers to consider the objectives, technical expertise, and particular needs of each party who reads or uses this TENDER.

In recognizing the inherent limitations of the assumptions, assessments, and information within this RFP, which may lack completeness, accuracy, adequacy, or correctness, bidders are urged to conduct their thorough investigation and analysis. It is imperative for each bidder to independently verify the accuracy, correctness, reliability, and completeness of the RFP's assumptions, assessments, and information, seeking advice from relevant sources. Furthermore, we anticipate written confirmation from each bidder regarding their understanding of these requirements. While the RFP serves as a foundational document, we encourage bidders not only to validate provided information but also to propose additional options and features. Such proactive contributions will enable us to assess your capabilities and confidence in successfully executing the ERP system implementation project.

EDCO, its employees, and its advisers make no representation or warranty and shall have no liability to any person including any bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment, or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this TENDER or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the TENDER and any assessment, assumption, statement or information contained therein or deemed to form part of this TENDER or arising in any way in this Selection Process.

EDCO also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any bidder upon the statements contained in this TENDER.

The information contained in this TENDER is selective and is subject to updating, expansion, revision, and amendment at the sole discretion of EDCO. EDCO may in its absolute discretion, but without being under any obligation to do so, update, amend, or supplement the information, assessment, or assumption contained in this TENDER.

The bidder shall bear all its costs associated with or relating to the preparation and submission of its proposal including but not limited to preparation, copying, postage, delivery fees, and expenses associated with any demonstrations or presentations which may be required by EDCO or any other costs incurred in connection with or relating to its proposal. All such costs and expenses will remain with the bidder and the bidder shall assume sole responsibility for verifying the accuracy, adequacy, correctness, reliability, and completeness of the assumptions, assessments, and information provided in this RFP, as EDCO will not undertake any validation regardless of the selection process outcome. EDCO emphasizes that the responsibility lies on bidders to ensure the precision of their proposals, and EDCO shall bear no responsibility for costs incurred or assumptions made during the proposal preparation process, including the correctness of assessments and other inputs affecting associated costs.

EDCO shall be the sole and final authority with respect to qualifying a bidder through this TENDER. The decision of EDCO in selecting the bidder who qualifies through this TENDER shall be final and EDCO reserves the right to reject any or all the bids without assigning any reason thereof.

EDCO may terminate the TENDER process at any time without assigning any reason and upon such termination. Accordingly, EDCO shall not be responsible for any direct or indirect loss or damage arising out of such a termination

The information contained in this TENDER is confidential and proprietary to EDCO. After accepting this TENDER, the supplier is not permitted to use the information contained herein for any purpose other than to submit a response and is not to disclose the existence of this TENDER outside its organization without prior written authorization from EDCO. Additionally, the Supplier agrees to prevent the disclosure of this information outside its organization. EDCO, may, at its option, request the return of this TENDER and any copies thereof from the Supplier.

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## Definitions and Abbreviations

Bidder	The organization that submits a formal proposal in response to this TENDER
ERP	Enterprise Resource Planning
CIR	Committed Information Rate
Client	EDCO (Electricity Distribution Company)
Winning Bidder	The organization selected/awarded to implement the project related to this TENDER
DR	Disaster Recovery Site
EMRC	Energy and Minerals Regulatory Commission
EDCO	Electricity Distribution Company
IT	Information Technology
PMI	Project Management Institute
PMP	Project Management Professional Certificate issued by PMI.
RFI	Request for Information
SI	System Integrated
SLA	Service Level Agreement
NDA	Non-Disclosure Agreement
SQL	Structured Query Language
WAN	Wide Area Networking
ToT	Train of Trainer
EUM	End User Manual
SaaS	Software-as-a-Service
TS	Technical Score
MDM	Meter Data Management
AMI	Advanced Metering Infrastructure
API	Application Program Interface
GIS	Geographical Information System
HES	Head End System
FAT	Factory Acceptance Test
ESB	Enterprise Service Bus
SOAP	Simple Object Access Protocol
SCADA	Supervisory system and data acquisition
VEE	Validation, Estimation, And Editing



## Invitation Tender No. 23/2024

Dear Sir;

You are kindly requested to submit your tender to Supply and Implementation of ERP / MDM (Enterprise Resource Planning / Meter Data Management) Solution project for Electricity Distribution Company (EDCO) in Jordan, by filling in the schedules, signing the form of tender, and forward the complete tender documents to the attention of EDCO - Director General addressed as seen below.

All bids must be accompanied with a Bid Bond of a value not less than 5% of the highest alternative tender price, otherwise your tender will not be considered. The Tenderer shall submit the Tender in three separately sealed envelopes one for Technical and the other for financial proposal, and the third one for bid bond. Each copy of the tender should be enclosed in a secure envelope endorsed "Supply and Implementation of ERP / MDM (Enterprise Resource Planning / Meter Data Management) Solution project ", but bearing no other mark from which the identity of the tender can be ascertained. Technical proposal shall not indicate any prices. All prices shall be shown in the financial proposal.

The bid bond shall be in separate envelope enclosed in the same envelope of tender contains financial proposal & technical proposal & bid bond in separate envelope and must be delivered to tenders secretary office located in headquarters building – **not later than 2 pm (local time) due 1.05.2024.**

**Director General  
Electricity Distribution Company (EDCO)  
P.O. BOX: 830878.  
Amman – 11183 – Jordan.  
The Hashemite Kingdom of Jordan**

# 1 TERMS OF REFERENCE

## 1.1. INTRODUCTION

- 1.1.1. Electricity Distribution Company PLC was established according to the provisions of the Company Law No. 22 of 1997. It was registered on 12 February 1998 in the Public Shareholding Companies Register under No. 335, with a capital of JOD 75%, 10.000.000 of which is owned by the Government and the 25% is owned by the National Electric Power Company divided into equal shares with a par value of JOD 1 per share. In implementing the governmental plans and programs of restructuring and privatizing the electricity sector as approved in 1990s, and based on the strategy of privatizing the electricity sector ratified by the Council of Ministers in 2001 and on the General Electricity Provisional Law of 2001, the process of company privatization has been completed. Furthermore, the agreements in connection to the process of the entire Company sale and transfer to the Kingdom Energy Investment Electricity Company on 02.07.2008 by 100%.
- 1.1.2. As an electricity distribution company, EDCO is part of the Distribution Sector, one of three sectors that compose the overall Electricity Sector in Jordan and include Distribution Sector, Transmission Sector, and Generation Sector.
- 1.1.3. EDCO operates within Jordan's Electricity Sector in compliance with the regulations and the standards of Energy and Minerals Regulatory Commission (EMRC) and under the supervision of the Jordan Ministry of Energy.
- 1.1.4. EDCO is a regulated electricity distribution company that purchases electrical energy from the National Electric Power Company (NEPCO) and renewable sources at a tariff specified by Energy and Minerals Regulatory Commission (EMRC) and selling it to domestic, commercial and industrial customers (around 285,602 customers) throughout more than half of the area of the Kingdom of Jordan; EDCO concession areas are: Jordan valley & Eastern area, Tafila, Al Karak, Ma'an and Aqaba.

1.1.5. EDCO's workforce of 1,460 employees are distributed across multiple departments as follows:

Department /Entity	No. of Employees
Finance and Accounting	47
Billing	17
Technical Affairs	44
Planning and Organization	36
Procurement and Warehouses	21
Districts / Jordan valley	243
Districts / Eastern Area	34
Districts / Al Karak	278
Districts / Tafilah	129
Districts / Ma'an	213
Districts / Aqaba	189
Administration	182
IT	27
<b>Total</b>	<b>1,460</b>

## 1.2. CURRENT TECHNOLOGY

EDCO's current billing and customer care system is SAP ECC6, and is maintained by in-house information technology (IT) staff. While the new system is in place, the legacy system, which operates on the COBOL platform, remains active for functions such as accounting, purchasing, warehousing, logistics, and payroll.

The requirements for the new system were developed to meet the Distribution Performance Standards issued by the Energy and Minerals Regulatory Commission (EMRC).

EDCO operates from its head office in Amman. An extensive, centrally-managed wide area network (WAN) connects more than 15 sites / branches across the concession area using either fiber or microwave for the primary and secondary network lines from various vendors and sources. Committed Information Rates (CIRs) on the links vary according to the actual needs of each site, with 200MB for the main offices and 50MB for other smaller offices.

The service providers for the Microwave Links are Umniah and ZAIN.

## 1.3. PROBLEM STATEMENT

In order to implement its strategies of growth and continuous development, EDCO ensures coping with the continuous human, organizational, technical, and business changes enabling EDCO to maintain its competitiveness and ensures its sustainability.

The objective of this tender is to engage a qualified ERP / MDM implementer for the comprehensive implementation and enhancement of the Billing and customer care solution at Electricity Distribution Company (EDCO). This project aims to establish a modern, core financial and billing system. The scope of the ERP / MDM system implementation may encompass software and hardware, options for onsite or offsite storage, licensing, training, as well as provisions for ongoing maintenance and support.

## 1.4. OBJECTIVES

EDCO intends to implement an ERP / MDM seamlessly integrating across all of its business functions, automating processes, activities, and deliverables. Accordingly, this project aims to increase productivity, effectiveness, and efficiency regarding EDCO operational performance by providing an interface for the exchange of data between the various functions/ workflows through ERP / MDM solutions so that the data flows without any human intervention and without any delay.

In addition to the problem mentioned above statement, EDCO needs a qualified ERP / MDM service provider/implementer to achieve the following project objectives:

- 1.4.1. Conversion of the current billing system (SAP ECC) to S/4 HANA platform
- 1.4.2. Automate operational processes.
- 1.4.3. Reduce cycle times for core business processes.
- 1.4.4. Eliminate redundancies and reduce human errors to the least.
- 1.4.5. Streamline Reporting and Monitoring across all departments.
- 1.4.6. Optimize connectivity across all departments.
- 1.4.7. Organizes & optimizes data creation, exchange, classification, and storage systematically.
- 1.4.8. Optimize data integrity and security.

To achieve the objectives above, EDCO, through a transparent process, seeks proposals from qualified and experienced firms, groups, or companies to procure and implement an ERP / MDM system.

EDCO seeks an organization with ERP / MDM software implementation project experience for local Enterprise companies, with expertise in the areas that include (but are not excluded to) ERP / MDM installation, configuration, implementation, customization, support, maintenance, data conversion, interface management, functional and integration testing, and technology infrastructure.

### **Project Drivers**

The following are considerations driving this project and the executive team's decisions.

- The industry trend is to drive access to customers with web and app-based delivery models that may not be available with the current ERP / MDM system.
- Management requires better access to data, information, and reporting that is currently unavailable, significantly restricted, or requires custom programming.
- As a result of current limitations to functionality and data correlation, EDCO personnel have developed work-around processes that are impacting EDCO's business and are difficult to support.

## 1.5. GENERAL REQUIREMENTS

This section outlines the mandatory requirements of this TENDER. Each point stated herein is crucial and must be fully complied with for a proposal to be valid. Non-compliance may lead to disqualification. We urge bidders to carefully review these general requirements to ensure your proposal accurately reflects an understanding and acceptance of them. These are not mere guidelines but obligatory components to streamline the selection process, maintain fairness, and identify the most suitable vendor for the project.

- 1.5.1. The ERP / MDM solution must be able to completely support and fulfill the detailed EDCO's functional requirements Annex number (3) (*separate file*) in this TENDER, and it will be delivered in a separate document; **the detailed functional requirements are obligatory to be fulfilled by the ERP / MDM solution implementor and considered part of the agreement.**
- 1.5.2. **All stipulations detailed in this TENDER are deemed mandatory and will form an integral part of the agreement.** The bidder's adherence to these terms is a prerequisite for their proposal's evaluation and potential acceptance. The evaluation process will be strictly based on the content of this TENDER and the extent to which the bidder meets the outlined requirements and conditions.
- 1.5.3. The ERP / MDM system must demonstrate capabilities specific to the **utilities and energy distribution industry**. This is vital to ensure that the system is aptly suited to cater to our industry's unique operational nuances, requirements, and challenges.
- 1.5.4. The ERP / MDM system should be designed to process all **transactions in real-time** and immediately available for inquiry and reporting. This feature will ensure prompt access to up-to-date information, enabling swift decision-making and efficient management.
- 1.5.5. The ERP / MDM system is required to support **multi-currency transactions** with precision up to **three decimal places**. This feature will enable more accurate financial management and operations in different currency denominations.
- 1.5.6. The ERP / MDM system should support a bilingual interface, with particular emphasis on **incorporating Arabic language support**. This is crucial to ensure seamless system usage across our diverse, multilingual workforce.
- 1.5.7. The ERP / MDM system should provide real-time **business intelligence and analytics tools**, allowing users to create customizable reports, dashboards, and data visualizations for data-driven decision-making.
- 1.5.8. The ERP / MDM system must **integrate with external systems**, including but not limited to WF, SCADA, GIS, HR, and MDM. The responsibility of ensuring successful and efficient integration with these systems **falls on the ERP / MDM implementer**. These integrations are crucial for a unified and efficient operational ecosystem.
- 1.5.9. The ERP / MDM system should have mobile accessibility, enabling users to access critical information and perform essential tasks on **smartphones and tablets**.
- 1.5.10. The ERP / MDM system should offer seamless integration with productivity tools like **email clients, calendars**, and document management systems to enhance collaboration and productivity.

- 1.5.11. The ERP / MDM system should provide **an audit log** feature that records and tracks all system activities, including user actions, data modifications, and system configurations. The audit log must capture relevant details such as date, time, user identity, and the nature of the activity performed. This requirement is essential to ensure accountability, traceability, and compliance with regulatory and internal control standards. Furthermore, the audit log should support a bilingual interface, with particular emphasis on incorporating Arabic language support. This is crucial to ensure seamless system usage across our diverse, multilingual workforce, enabling efficient monitoring and analysis of system activities while promoting transparency and security in our operations.
- 1.5.12. The ERP / MDM system must possess **web access capability**, enabling users to access and interact with it remotely via a secure online interface. This will facilitate flexible and efficient operations, allowing our team to carry out tasks irrespective of their geographical location.
- 1.5.13. The ERP / MDM system should be able to **export data into standard formats like spreadsheets, PDF, AND XML**, enabling further analysis and enhancing reporting capabilities. This functionality is vital to ensure data handling flexibility and facilitate comprehensive data-driven decision-making processes.
- 1.5.14. The ERP / MDM system should exhibit robust **workflow capabilities across all modules**, including the implementation **of approval hierarchies** in specified areas. This feature is key to ensuring seamless operations, efficient task management, and adherence to organizational processes and structures.
- 1.5.15. The ERP / MDM system should offer **robust security measures**, including data encryption, user authentication, audit trails, role-based security, and disaster recovery mechanisms.
- 1.5.16. The ERP / MDM system should be **scalable and flexible** to accommodate business growth, and organizational restructuring.
- 1.5.17. The system should run three landscapes to support development and testing, and to comply with IT auditing requirements. These three landscapes are development, quality and production.

## 1.6. HOSTING REQUIREMENT SPECIFICATIONS

- 1.6.1 The system should be cloud-based, which entails storing, managing, and processing data on a network of remote servers hosted on the Internet. This approach offers benefits like scalability, cost-efficiency, and enhanced accessibility, as well as built-in disaster recovery solutions and automatic system updates, making it a robust and flexible solution for diverse needs.
- 1.6.2 The vendor must demonstrate a capability to enable seamless transitions among diverse hosting environments, ensuring minimal cost and effort are involved in the process. This adaptability is indispensable to cater to possible alterations in the company's IT strategy or infrastructure demands. The vendor should submit the following hosting options, and he has to ensure flexibility amongst the following hosting options:
- 1.6.2.1 The system should be delivered as a Software-as-a-Service (SaaS) solution, ensuring that the data center and infrastructure are owned and managed by the system provider. This approach offers benefits like scalability, cost-efficiency, enhanced accessibility, disaster recovery solutions, and automatic updates.
- 1.6.2.2 The system should be delivered as a Software-as-a-Service (SaaS) solution with local hosting in Jordan, ensuring that the data center and infrastructure are locally in Jordan, and at least the infrastructure owned and managed by the system provider. This approach offers benefits like scalability, cost-efficiency, enhanced accessibility, disaster recovery solutions, and automatic updates.
- 1.6.2.3 The system should be delivered as On-Premise, ensuring that all required infrastructure to be located, installed and fixed in EDCO premises. The latest version of ISO27001 must be complied as a minimum requirement for system and data security for all related requirements. The vendor should submit two costing models in this hosting option. The costing models are related to the systems, applications and infrastructure. The first model is CAPEX/OPEX model, and the second one is OPEX model.
- 1.6.2.4 The system should be delivered as cloud at EDCO's premises. This option should include providing the infrastructure as a service with system cloud environment. The vendor should submit two costing models in this hosting option. The costing models are related to the systems, applications and infrastructure. The first model is CAPEX/OPEX model, and the second one is OPEX model.
- 1.6.2.5 The system should be delivered as cloud in JORDAN. This option should include providing the infrastructure as a service with system cloud environment locally in Jordan. The vendor should submit two costing models in this hosting option. The costing models are related to the systems, applications and infrastructure. The first model is CAPEX/OPEX model, and the second one is OPEX model.



- 1.6.3 The chosen hosting region and disaster recovery location should prioritize utmost security. Selecting geographically separate locations for disaster recovery is essential to mitigate risks effectively. The ERP system provider must agree with EDCO on the region to be selected for hosting to ensure alignment and meet the necessary security standards.
- 1.6.4 The system provider should demonstrate their commitment to synchronizing real-time data between the backup and the company's local storage systems. The proposal should depict any additional costs associated with this service (if incurred).
- 1.6.5 The system provider should provide recommendations for the local infrastructure and hardware requirements necessary to ensure the system's smooth operation. These recommendations should outline the specific hardware specifications, network infrastructure, and any other essential components needed to optimize the system's performance.
- 1.6.6 Bidders selecting a cloud-hosting option must ensure compliance with three essential criteria to guarantee the security and reliability of the proposed solution:
  - 1.6.6.1 **CSA - STAR Certification:** Bidders must hold recognition from the Cloud Security Alliance (CSA) through its Trust and Assurance Registry (STAR) program, affirming their commitment to industry-leading security practices and instilling confidence in the integrity of the proposed cloud infrastructure.
  - 1.6.6.2 **CAIQ V4 Matrix Submission:** Submission of the Cloud Security Alliance (CSA) Cloud Controls Matrix (CAIQ V4) is mandatory. This comprehensive matrix outlines the security controls implemented by the chosen cloud service provider, ensuring transparency and facilitating a thorough assessment of the proposed solution's security measures.
  - 1.6.6.3 **SOC 2 Type II Audit Report and Certification:** Bidders are obligated to provide a Service Organization Control (SOC) 2 Type II audit report and certification when opting for cloud hosting. This requirement ensures compliance with rigorous security, availability, processing integrity, confidentiality, and privacy standards, demonstrating the bidder's commitment to maintaining a secure hosting environment.

## 1.7. APPLICATION MANAGED SERVICES (AMS)

In the ongoing development of our ERP system implementation project, EDCO is seeking detailed proposals for Application Managed Services (AMS) to ensure the comprehensive support, maintenance, and continuous improvement of the ERP system over a five-year period following its initial launch. This request includes both the technical and financial aspects of the AMS offering. Bidders are required to present an integrated proposal that details the scope of their AMS capabilities, clearly distinguishing between technical services provided and the associated financial investment required by EDCO.

The AMS proposal must cover all necessary services to maintain optimal ERP system performance and adaptability, including application maintenance, system updates and upgrades, technical and user support, security protocols, and training. Importantly, proposals must take into account the hosting options outlined in earlier sections of this RFP, ensuring that the AMS strategy is aligned with EDCO's hosting preferences, whether it be on-premises, cloud-based, or a hybrid approach.

Proposals should clearly define the service level agreements (SLAs), expected response times, and proactive strategies for minimizing system downtime and enhancing overall performance. The financial section must provide a comprehensive breakdown of costs over the five-year period, detailing any upfront fees, periodic charges, and expenses related to additional services or upgrades that may arise. Additionally, bidders should elaborate on how their services will evolve in response to new technological developments and changing organizational needs over the contract period.

EDCO is looking for a vendor that not only understands our operational requirements but also exhibits the flexibility and commitment necessary to support our dynamic business environment through effective and responsive application management.

## 1.8. ERP / MDM MODULES IN-SCOPE

The following modules are those required in the ERP / MDM solution: These are typically indicative, not exhaustive, functionalities required in the ERP / MDM solution. The SI shall ensure that the proposed ERP / MDM solution covers all the requirements of quality standards applicable to each functional area, statutes, rules, and regulations applicable to the functions, and the International best practices in each discipline. Detailed functional requirements of the following modules are provided in Annex 1 (Attached) of this TENDER document.

The proposal should delineate the implementation of modules in two waves, providing comprehensive information on financial details and the anticipated implementation duration. The decision regarding whether to pursue a big bang approach or a two-wave strategy lies within the purview of EDCO.

- **Wave 1:**

- 1.8.1. Finance and Accounting Management, including:

- Management of financial and analytical accounting.
- Accounting Management for projects, warehouses, vendors, assets, billing, general accounting/expenses, insurance, and clearance.
- Management of costs by sector and/or business units. (cost center/ profit center accounting)
- Budget Management (by projects, areas, purchases, funding sources, etc.).
- Financial Planning/forecasting.
- Financial Statements and trial balance.
- Financial reporting.
- Chart of accounts.
- General Ledger Accounting.
- Accounts Payable Accounting.
- Accounts Receivable Accounting.
- Payments and Reconciliation.
- Cash Management.
- Banking transactions, including reconciliations.
- Taxation.
- Treasury Management.
- Fund Management.
- Cost Center Accounting.
- Invoice verification.

- 1.8.2. Asset Management (Fixed Corporate Assets):

- Assets Accounting.
- Assets Capitalization.
- Assets Register.
- Asset History
- Physical verification and control.
- Depreciation Management.
- Depreciation Run Simulation
- Asset tagging.
- Asset replacement, scrapping, and decommissioning.
- Impairment and sale or disposal of assets.
- Integration with GIS system

- 1.8.3. **Integration with Billing and Collection Management module:**
- Billing Management (Issuance, modification, cancellation).
  - Reconciliation.
  - Billing Accounting (including management of costs). Integration with G/L, AR, FICA
- 1.8.4. **Procurement and Tendering Management:**
- Vendors Master Data.
  - Vendor Registration.
  - Purchase requisition management.
  - Specifications Management.
  - Tendering.
  - Sourcing and Vendor Selection
  - Contract Management.
  - Purchase Order Processing.
  - Purchase Administration Management and Analysis
- 1.8.5. **Inventory and Warehouse Management:**
- Item Master Data.
  - Items Coding
  - Warehouses.
  - Bin Locations.
  - Goods Receipt.
  - Invoice Entry.
  - Material Issuance. (work orders/ projects)
  - Item movement/transportation management.
  - Inventory Management.
  - Management of scrapped/unused items/defected materials.
  - Batch/ Serial Management.
- 1.8.6. **Customer Service System:**
- Customer Relationship management (CRM).
  - Case Management.
  - Communication and Interaction.
  - Service Request Management.
  - Self-service portal.
  - Service Level Agreements (SLAs).
  - Customer Feedback and Satisfaction.
  - Outage management.
  - Integration with Renewable Energy Portal.
- 1.8.7. **Human Capital Management (HCM):**
- Organizational Management (OM).
  - Personnel Administration (PA).
  - Time Management.
  - Personnel Cost Planning (PCP).

1.8.8. Meter Data Management (MDM) \*

- Meter Installation and Maintenance.
- Meter Configuration and Calibration.
- Remote and On-Site Meter Reading.
- Smart Meter Integration and Technology Management.
- Meter Data Collection and Validation.
- Account Setup and Maintenance.
- Accounts Receivable and Collections.
- Tariff and Pricing Management.
- Discounts, Rebates, and Incentives Management.
- Consumption Analysis by Customer, Sector, or Business Unit.
- Reporting and Visualization of Consumption Data.
- Trend Analysis and Forecasting.
- Peak Demand Analysis.
- Customer Portal and Self-Service Tools.
- Customer Inquiry and Complaints Management.
- Customer Communication (notifications, alerts, etc.).
- Energy Efficiency and Conservation Programs.
- Compliance with Regulatory Standards and Guidelines.
- Data Security and Privacy.
- Reporting to Regulatory Bodies.
- Environmental Reporting and Carbon Footprint Analysis.
- Integration with Other Business Systems (e.g., ERP, CRM).
- Data Quality Management.
- Data Storage, Backup, and Retrieval.
- Interoperability with Other Utility Service Providers.
- Budget Management for Metering Projects.
- Vendor and Contract Management for Metering Services.
- Financial Reporting and Analysis for Metering Operations.
- Analysis of Unusual Consumption Patterns.
- Theft and Fraud Investigation and Resolution.

**\* Notes:**

**1. MDM module is a mandatory in the bidder proposals (Technical and Financial), and it's optional for EDCO to select.**

**2. The MDM tender document encompasses compliance requirements, which will be detailed in a separate document. Special prequalification criteria and deliverables applies to MDM solution and implementer.**

- **Wave 2:**

1.8.9. Maintenance system:

- Maintenance Master Data.
- Bill of materials.
- Maintenance planning
- Maintenance Requests Management.
- Maintenance Orders Management.
- Maintenance Scheduling Management.
- Maintenance notifications.

1.8.10. Customer Service System:

- Customer Relationship management (CRM).
- Case Management.
- Communication and Interaction.
- Service Request Management.
- Self-service portal.
- Service Level Agreements (SLAs).
- Customer Feedback and Satisfaction.
- Outage management.

1.8.11. Project Management:

- Project Planning.
- Work Breakdown Structure (WBS).
- Work order Execution.
- Activity Definition and Sequencing.
- Order Management/Rescheduling.
- Resource Management.
- Resource Allocation.
- Resource Tracking.
- Project Scheduling.
- Gantt Chart.
- Milestone Tracking.
- Task Management.
- Task Assignment and Tracking.
- Task Collaboration.
- Task completion and reporting.
- Performance analysis.
- Project Monitoring and Control.
- Progress Tracking.
- Issue and Risk Management.
- Integration with Fixed Assets, GL and Budgeting (Funds).

## 1.9. BILLING SOLUTION

### 1.9.1. Overview:

This section outlines the requirements for submitting proposals for the billing solution module as part of the broader RFP, which includes various other modules. Bidders are expected to provide a comprehensive offer for this module, taking into consideration the specific requirements and conditions outlined below.

### 1.9.2. Requirements for SAP Solution Proposals:

Bidders proposing a solution based on SAP must include in their offer detailed plans for improvements and enhancements to the existing billing module currently in use at Electricity Distribution Company (EDCO). The proposal should clearly articulate the value-add and advancements that the proposed enhancements will bring to the existing system. This may include, but is not limited to, increased efficiency, better integration capabilities, enhanced features, or any other improvements that would elevate the current billing processes.

### 1.9.3. Requirements for Non-SAP Solution Proposals:

For bidders proposing a non-SAP solution, the offer must include a comprehensive strategy for integrating the proposed solution with EDCO's existing SAP modules. It is crucial to note that the responsibility for all integration work lies with the bidder. The proposal should detail how the new solution will be seamlessly integrated with the current system, ensuring continuity and minimal disruption. This integration plan should encompass all aspects of the process, including data migration, system compatibility, and any necessary customizations to ensure a cohesive operation between the new solution and the existing SAP-based billing module. Integration with SAP should be thru SAP certified tools.

**Note on Replacement of Current Billing Solution:** It is important for bidders to note that completely replacing the current billing solution is not an option under this RFP. Proposals should focus on integration and enhancement of the existing system rather than suggesting a full replacement.

## **1.10. UPGRADE PROPOSAL FOR SAP ECC 6 TO S/4 HANA:**

The purpose of this section is to invite bidders who propose SAP as a solution to submit a comprehensive proposal for the upgrade of our current on-premise SAP ECC 6 system to the latest S/4 HANA version. Bidders are requested to delineate their approach, methodologies, and timelines for the seamless transition from ECC 6 to S/4 HANA.

### **1.10.1. Proposal Submission Requirement:**

- Only bidders proposing SAP as a solution are eligible to submit proposals for this specific upgrade.
- Proposals should include a detailed breakdown of the pricing and technical specifications separately for the upgrade from SAP ECC 6 to S/4 HANA. This breakdown should facilitate a clear and transparent analysis.

### **1.10.2. Technical Scope:**

- Bidders are expected to outline the technical aspects of the upgrade, including system architecture, data migration strategy, and potential impacts on existing customizations.
- Hosting options should be a key component of the technical scope. Bidders must provide details on the hosting solutions they recommend for the SAP ECC 6 to S/4 HANA upgrade. It is essential that the proposed hosting aligns with the options presented for the overall ERP system.

### **1.10.3. Alignment with Full ERP System Proposal:**

- The technical scope and hosting options proposed for the SAP ECC 6 to S/4 HANA upgrade must align with the bidder's recommendations for the entire ERP system. Consistency in hosting solutions will contribute to a seamless and integrated ERP environment.

### **1.10.4. Evaluation Criteria:**

The upgrade proposal will be evaluated based on the clarity and comprehensiveness of the approach, adherence to timelines, proposed hosting solutions, and alignment with the overall ERP system proposal.



## 1.11. PROFESSIONAL SERVICES

In addition to the modules/systems mentioned above, EDCO also requires professional services that encompass various areas. These services may include, but are not limited to, the following:

- 1.11.1. **Business process review:** EDCO needs professional services to assess and improve its business processes. This includes analyzing workflows, identifying areas for enhancement, and proposing solutions for increased efficiency.
- 1.11.2. **Implementation planning and consulting:** developing a roadmap, defining milestones, and providing expert support for successful execution.
- 1.11.3. **Implementation of project management based on PMI:** Executing the project management methodology based on the Project Management Institute (PMI) standards. This includes implementing best practices, processes, and tools to effectively manage projects and ensuring adherence to project timelines, budgets, and quality standards.
- 1.11.4. **Standard implementation methodology as recommended by the ERP / MDM company:** implementer to follow the recommended implementation methodology provided by the ERP / MDM company. This includes adopting established processes, tools, and guidelines to ensure a structured and successful ERP / MDM system implementation.
- 1.11.5. **Software installation and configuration:** EDCO requires professional services for the installation and configuration of the software. This involves properly setting up and customizing the software to align with EDCO's specific needs and preferences. The service provider will ensure that the software is correctly installed, all necessary components are appropriately configured, and any required integrations with existing systems are established.
- 1.11.6. **Interface Development and Required Customization:** Providing a user-centric ERP / MDM interface, ensuring seamless integration and customization to meet our unique needs. The vendor's proficiency in interface development and ERP / MDM customization, ensuring system integrity and performance, is essential. Development of forms, reports, custom components, and enhancements.
- 1.11.7. **Integration with Other Systems:** Ensuring compatibility and seamless connectivity with existing systems within our infrastructure (all integration tools to be responsibility of the vendor). This requires a comprehensive approach to integrate the ERP / MDM solution with other systems, prioritizing data consistency, process automation, and functional coherence, while maintaining the overall system performance and stability.  
  
**Note:** Integration of ERP / MDM system with all related information and workflow systems and applications used at EDCO.
- 1.11.8. **Data Cleansing, Conversion and Migration:** Facilitating safe and accurate data transfer from our current systems to the new ERP / MDM solution. This involves meticulously planning, executing, and validating the data conversion/migration process, prioritizing data integrity, consistency, and minimal downtime to ensure a smooth transition.

- 1.11.9. **System Testing:** Conducting thorough testing of the ERP / MDM solution to ensure functionality, performance, and security standards are met. This includes, but is not limited to, unit testing, integration testing, system testing, and user acceptance testing, with an emphasis on identifying and resolving potential issues prior to deployment.:
- Design and preparation of test script, test data, trial run, and arranging acceptance testing of all modules / scenarios.
  - Conduct unit testing, integration testing, user acceptance testing, load testing, performance testing, and stabilization testing.
- 1.11.10. **Quality Assurance:** The selected vendor is expected to guarantee successful ERP / MDM implementation, aligning with our organization's requirements and expectations. This involves rigorous quality control measures, continuous monitoring, and systematic feedback loops throughout the implementation process to assure system reliability, performance, and overall quality.
- 1.11.11. **Go-live and Stabilization:** Ensuring a successful go-live run of all ERP / MDM modules with real-time data, followed by a stabilization phase to rectify any issues and confirm consistent system performance across all locations.
- 1.11.12. **SLA (Service Level Agreement):** SLA will be signed between the selected (implementer) and EDCO to define the expected levels of service and performance to be provided by the selected (implementer) to EDCO.
- 1.11.13. Documentation (Systems Details, Operation, troubleshooting, user manuals, system administrator manuals...etc.).
- 1.11.14. Comprehensive System Training: Conduct training sessions and ToT for IT and Business, prepare and supply user/operation/system / trainer manuals EUM.

## 1.12. PROJECT MANAGEMENT REQUIREMENTS

The subsequent requirements are fundamental components of the project management aspects for this ERP / MDM implementation and should be met in alignment with the standards defined in the sections on deliverables (Section 1.14) and professional services (Section 1.11). Respondents are encouraged to thoroughly comprehend these additional stipulations to ensure comprehensive project management execution throughout the ERP / MDM implementation process.

The selected implementation partner will be expected to render a broad spectrum of project management services. While the deliverables outlined below provide a comprehensive guide, they are not exhaustive. Innovative, value-adding services are encouraged wherever deemed appropriate. For successful project execution, the comprehensive project management plan delivered to EDCO must encompass these critical areas, in line with PMI standards:

- 1.12.1. Development and continual maintenance of a dynamic project schedule, facilitated through Microsoft Project, and periodically updated to accurately reflect project progress and adjustments.
- 1.12.2. Establishment and routine update of an up-to-the-minute project dashboard, with its frequency of updates to be determined at the project kick-off meeting.
- 1.12.3. An articulate reporting structure to ensure consistent and effective stakeholder communication through regular reports and presentations.
- 1.12.4. A robust risk and issue management framework to proactively identify, track, and address potential project impediments.
- 1.12.5. A well-rounded stakeholder management strategy, fostering continuous engagement and clear communication throughout the project lifecycle.
- 1.12.6. A systematic change management process to manage and document any adjustments in project scope, timeline, or resources.
- 1.12.7. A rigorous quality management strategy for constant quality checks and the execution of corrective measures if required.
- 1.12.8. A mechanism for capturing and disseminating 'lessons learned' throughout the project, enhancing future project practices and promoting knowledge sharing.
- 1.12.9. Formation of a steering committee incorporating senior executives **from the Solution Provider and Implementer**.
- 1.12.10. Coordination of project interdependencies and facilitation of effective cross-project communication.
- 1.12.11. Centralization of project monitoring and reporting.

- 1.12.12. Implementation, review, and continuous enhancement of project management governance policies and practices.
- 1.12.13. Centralized management of business risks and change control across all programs and projects.
- 1.12.14. Preparation and management of a centralized knowledge database for all programs and projects.
- 1.12.15. Management of status reporting and metrics reporting processes across all projects.
- 1.12.16. Resolution of issues and effective management of project financials, resources, and facilities.
- 1.12.17. Escalation of any “red flags” to EDCO management to ensure timely resolution and prevent budget or schedule overruns.
- 1.12.18. Planning and management of stakeholder communications from a project management perspective.
- 1.12.19. Revision of plans in conjunction with project managers.
- 1.12.20. Conduct of quality reviews in the project to ensure adherence to governance protocols.

### 1.13. CHANGE MANAGEMENT REQUIREMENT

The implementer will be tasked with the responsibility of providing comprehensive Change Management to aid the transition of stakeholders, encompassing both internal and external parties, individuals, teams, and organizations from their existing state to a desirable future state. The primary objective of this change management process will be to manage the impact, maximize the benefits of the solution, and ensure minimal disruption to EDCO's normal flow of activities, thereby achieving successful acceptance of the solution. The scope of change management should encapsulate, but is not limited to, the following deliverables:

- Change Preparation.
- Change Impact Analysis.
- Change Management Charter & Strategy.
- Change Management Schedule (Using Microsoft Schedule).
- Change Control.
- Job Role Mapping.
- Change Readiness Surveys (4 Surveys).
- Change Reinforcement.
- Sponsorship Roadmaps.
- Coaching Plans.
- Training Plans.
- Resistance Management Plans.
- Reinforcements Plans.

The implementer should follow a tried-and-tested methodology, ensuring all deliverables from all phases, starting from the Project Preparation Phase to the Deployment, Go-Live, and Support phase, are duly submitted.

Prior to the commencement of the contract, the implementer should provide EDCO with a Change Management Strategy which should cover the following activities:

- 1.13.1. Change Impact Analysis: Measure the impact of the changes on individuals, departments, and divisions within EDCO, helping the organization understand the dynamics of process, system, and behavioral changes, and fostering business ownership of benefits. This analysis should include the following points:
  - Pain Points in each process / sub-process.
  - Benefits of each process / sub-process.
  - List of all processes / sub-processes.
  - Magnitude of each impact.
  - Action required for each pain point.

- 1.13.2. Stakeholder Relationship Management: Identify stakeholder groups and develop a plan to engage and define participation along the project timeline, aiming to drive adoption and minimize resistance. Stakeholder management activities should include:
- Stakeholder Identification.
  - Stakeholder Mapping and Prioritization.
  - Stakeholder Analysis Report.
  - Stakeholder Engagement Plan Preparation.
  - End-User Acceptance Survey.
- 1.13.3. Governance: This encompasses endorsing program goals and visions, approving the scope and budget, setting direction, monitoring success, approving resources, ensuring executive input and engagement, and issue resolution.
- 1.13.4. Communication and Engagement: Information, both mass and targeted, frequent and factual, should be communicated to clearly explain benefits, impacts, and expectations. The communication should be two-way, ensuring feedback and consistency of messaging.
- 1.13.5. Skills and Competencies: Identify possible skill gaps and all learning and performance support-related activities. Coordinate with the development of training material and documentation for end-user and project teams.
- 1.13.6. Organizational Alignment: Address organizational and management structure requirements to align with business and process metrics.
- 1.13.7. Performance Management: Identify and implement changes that impact the success of the ERP / MDM implementation and facilitate the desired benefits of the implementation.
- 1.13.8. Change Monitoring: Address the impact of Change Management activities for solution acceptance, providing a key measure for early adaptation of the Change Management strategy.
- 1.13.9. Change Readiness Assessments: Determine change risks and EDCO's ability to change using a combination of interviews, observations, workshops, and surveys.

It is crucial that regular stakeholder analyses are performed throughout the project phases and after each readiness survey, ensuring that the Change Management Strategy remains effective and up-to-date.

## 1.14. DELIVERABLES

As part of their contractual obligations, the selected bidder is expected to deliver the following tangible outcomes for this project:

### 1.14.1. Approach and Planning:

- 1.14.1.1. Implementation project strategy.
- 1.14.1.2. Approach and Implementation Methodology (standard manufacturer methodology to be followed).

### 1.14.2. Project Management and Documentation:

- 1.14.2.1. Project management documentation (detailed project plans and charter) following PMI standards.
- 1.14.2.2. Project Knowledge warehouse (issue logs, risk mitigation plans, project organization, workshop outputs, configuration notes, etc.).
- 1.14.2.3. Project schedule (MS Project).
- 1.14.2.4. Risk Register and risk management plan.
- 1.14.2.5. Communication Management Plan.
- 1.14.2.6. HR and staff management plan.
- 1.14.2.7. Change control procedure.
- 1.14.2.8. Status Report (Weekly, milestone, steering committee).
- 1.14.2.9. Lessons Learned Report.
- 1.14.2.10. Change management documentation as listed in the “Change Management” section.

### 1.14.3. System Implementation and Configuration:

- 1.14.3.1. Detail Design Workshops Plan.
- 1.14.3.2. Business Process Procedures customized for EDCO's processes based on the industry best practice.
- 1.14.3.3. Process Workflow.
- 1.14.3.4. System Requirement Specifications.
- 1.14.3.5. Functional specification documents.
- 1.14.3.6. Technical specification documents.
- 1.14.3.7. Detailed Process requirements.
- 1.14.3.8. Organizational impact analysis.
- 1.14.3.9. Configured and tested system and supporting functionality as described in project scope.
- 1.14.3.10. Configuration documents for post-implementation support purposes.
- 1.14.3.11. Knowledge transfer to core team members of configurations and reasoning for them (training).
- 1.14.3.12. Security and Authority matrix.

#### **1.14.4. Data Migration and Integration:**

- 1.14.4.1. Migration plan.
- 1.14.4.2. Data Migration Object List.
- 1.14.4.3. Data Migration Strategy Document.
- 1.14.4.4. Data Migration templates.
- 1.14.4.5. Data Migration work tracker.
- 1.14.4.6. Reconciliation report(s) for each object.

#### **1.14.5. Testing and Quality Assurance:**

- 1.14.5.1. Testing plan and strategy.
- 1.14.5.2. User acceptance plan.
- 1.14.5.3. Functional Risk Assessment.
- 1.14.5.4. Unit and integration test scripts.
- 1.14.5.5. Validation and integration test results.
- 1.14.5.6. Unit and Integration System testing report.
- 1.14.5.7. Key user training and support end-user training sessions.
- 1.14.5.8. Production support plan.

#### **1.14.6. Training**

- 1.14.6.1. Training Management Plan.
- 1.14.6.2. Administration Training plan.
- 1.14.6.3. Administration Training Material.
- 1.14.6.4. Superuser Training Plan.
- 1.14.6.5. Superuser Training Materials.
- 1.14.6.6. End User Training Plan.
- 1.14.6.7. End User Training materials.
- 1.14.6.8. Training Attendance Sheets.
- 1.14.6.9. Training Reports.
- 1.14.6.10. Attendance and evaluation sheets.

#### **1.14.7. Cut-over and Go-Live:**

- 1.14.7.1. Detail Cut-Over Plan and strategy.
- 1.14.7.2. Post-go-live support documentation.
- 1.14.7.3. Hand-over and Knowledge Transfer.
- 1.14.7.4. Formal project closure report.



## 1.15. TEAM COMPOSITION

The composition of the organization's Team (**total number of experts and qualifications**) should be proposed by the bidder.

The evaluation process for project implementation team members involves a thorough review of their CVs by EDCO, followed by comprehensive interviews. These interviews serve as a crucial step in assessing the suitability and qualifications of the team members.

- 1.15.1. **Project team should be dedicated to the project with full-time onsite work during the project**, and any replacement of team members necessitates the knowledge and approval of EDCO. It is essential to inform EDCO about any proposed changes to the project team, ensuring transparency and obtaining their consent before implementing any substitutions.

It is expected that the team at least shall include experts in the following disciplines:

- 1.15.2. The assignment and involvement of a **Project Manager or Project Management Team** that is certified by the Project Management Institute (PMI) is a requisite for this project. The provider is expected to adhere to PMI standards, utilizing a Project Management Professional (PMP) certified team for effective execution, control, and completion of the project.
- 1.15.3. The solution architect(s) deployment is required to design the system configuration and facilitate its integration with other existing systems, aligning with best practices in the utility industry. These professionals will be expected to construct a system architecture that optimizes performance, reliability, and functionality while adhering to our specific business needs.
- 1.15.4. The presence and active participation of a **quality assurance (QA) team** from the provider's side is mandated throughout the implementation process. This QA team will be responsible for verifying the quality of the deliverables at each stage of implementation, ensuring that the final system meets the defined standards and functional requirements.
- 1.15.5. The provider is expected to delegate **dedicated ERP Functional consultant** for each specific area and function. These consultants, who should be **fluent in Arabic**, must possess **at least ten years of hands-on experience** in their respective domains and be essential to be an expert in **the Utilities industry**, bringing a wealth of knowledge and industry expertise to ensure successful implementation and maximum system efficiency.
- 1.15.6. The deployment of **technical consultant** is crucial for system deployment, commissioning, testing, and development/customization tasks. These professionals will handle the technical aspects of the project, ensuring the system is correctly installed, effectively customized to our needs, and thoroughly tested for stability and functionality before going live.

- 1.15.8. A dedicated **Data Migration Consultant** is required to handle all data migration activities throughout the project. This individual will be responsible for planning, coordinating, and implementing data migration from our existing systems to the new system, ensuring data integrity, security, and accessibility are maintained at all times. Data migration consultant is responsible for analyzing gaps between legacy and proposed data models and providing specific technical guidelines ensuring migrated data validity, completeness, correctness and consistency.
- 1.15.9. An **Organization Change Management (OCM) Consultant** is vital for EDCO's project success, facilitating seamless transition and adoption of the new system. They develop an OCM strategy, assess change impacts, engage stakeholders, design training programs, identify change champions, and assess readiness. Their expertise ensures system acceptance, minimizes resistance, and maximizes benefits, enabling a smooth transformation.
- 1.15.10. It is essential to include a **Subject Matter Expert (SME)/ Solution Architect (SA)** with a strong background in the electricity industry, particularly in the distribution sector. This expert will provide valuable insights and recommendations to guide the system setup and integration process, ensuring the solution aligns with the industry's best practices and operational nuances.

## 1.16. ADDITIONAL REQUIREMENTS

Building upon the stipulations previously detailed, the proposal should also articulate comprehensive strategies to tackle the subsequent issues. These additional considerations are pivotal to our evaluation process and a thoughtful, effective response to these areas will demonstrate your organization's capacity to deliver a holistic and robust ERP / MDM implementation solution.

- 1.16.1. Prerequisites list needed before project kick-off:
  - Technical infrastructure requirements,
  - Team preparation and readiness requirements
  - Project team requirement from EDCO side (Business and IT) and Implementation partner project team, this includes team competency, size, time, and dedication.
- 1.16.2. The implementation strategy to be adopted for EDCO, is it phase-wise or big Bang? and what is the justifications thereof? These questions have to be answered, along with that, more details are needed in terms of Project Plan, Timeline, and Tasks (a sample project plan is recommended to share for each phase or wave).
- 1.16.3. The implementation of the system will be conducted on-site at the Headquarters (HQ) located in Amman. The provider's team will be expected to cooperate closely with our internal team during the implementation process, ensuring a smooth and efficient setup and integration with our existing infrastructure.
- 1.16.4. The project should be executed using the standard implementation methodology recommended by the manufacturer for deploying EDCO's ERP / MDM system. This methodology should ensure the delivery of the expected outcomes and all recommended deliverables systematically and efficiently.
- 1.16.5. The proposal should clearly indicate the anticipated duration for EDCO to review each deliverable and provide feedback or confirmation to the implementer. It is imperative to include this timeframe in the project schedule, ensuring transparency and effective coordination. The project schedule should explicitly state the expected time period required for EDCO's review process and subsequent communication with the implementer regarding the status of each deliverable.
- 1.16.6. The project schedule should provide a clear and detailed tasks assigned to the implementer's quality assurance team. These tasks play a vital role in validating the deliverables and outcomes before their submission to the EDCO team. It is crucial to explicitly specify these quality assurance tasks in the project schedule, ensuring effective collaboration and adherence to the established quality standards.
- 1.16.7. The provider is expected to present case studies from previous successful ERP / MDM implementations within Jordan and the broader MENA region. Upon EDCO's request, reference calls with these customers should be facilitated to further assess and understand the provider's implementation strategy, methodology, and outcomes.

- 1.16.8. The provider is required to supply exemplar documents from prior implementations, such as Functional Specification Documents, Design Documents, Training Manuals, and Test Scripts. This is necessary to assess the quality and comprehensiveness of their documentation process.
- 1.16.9. The provider is required to provide explicit clarification on the ownership of the system's source code (Customization). This includes, but is not limited to, stipulations on rights, modifications, and usage post-implementation.
- 1.16.10. Training Methodology for both (Business and IT):
- Training plan to build internal knowledge center business and IT within EDCO.
  - Suggested pre-training sessions (this could be better as the internal champions of the system could be drivers) or as part of the implementation plan).
  - Levels of training that could be part of the proposal.
- 1.16.11. The provider must detail their post go-live support methodology, covering the following aspects:
- **Support Levels:** The provider should define the various support levels, associated response times, and team availability. A flowchart outlining this information is required.
  - **Change Control Procedure:** The provider should explain their approach to managing changes in the system post-implementation.
  - **Business as Usual:** The provider needs to illustrate how they ensure regular system operations after the go-live.
  - **Upgrades:** The provider should elaborate on their strategy for system upgrades, including scheduling and execution.
  - **Patch Release:** The provider must detail their procedures for releasing patches, including testing and deployment strategies.

## 2. MDM RELATED CONDITIONS

### 2.1. SCOPE OF WORK

EDCO has a plenty of software & smart systems dedicated to be the core of EDCO smart grid, and here we are looking for a complimentary MDM solution as a part of desired smart grid.

This document describes the minimum requirements for MDM as turnkey project including and not limited to:

1. Design.
2. Data Cleansing.
3. Data Migration.
4. Implementation and configuration.
5. Integration with EDCO following systems (\*):
  - I. Head End Systems:
    - a) Hexing MDC V8.11.0.13\_ED2\_RELEASE/UAP-UI V3.2.0.0-RELEASE
    - b) Holley MDC version V1.3.24.1.15 (Under upgrade)
  - II. SAP system:
    - a) Customer Information System - SAP ECC - CIS
    - b) Billing System - SAP ECC EHP8
  - III. SCADA, & Outage management of DMS MICROSCADA PRO 600 4.4 FP1 HF5.
  - IV. GIS:
    - a) ArcGIS Desktop 10.8.2 by ESRI. (Might be upgraded into ArcGIS Pro)
    - b) ArcFM 10.8.2 by Schneider. (Might be upgraded into ArcFM 11)
  - V. CYME: CYMdsit 8.2
  - VI. Call Center (AVAYA IP Office Server Edition R11).
6. Testing & commissioning up to right operation (\*\*).
7. Training.
8. Warranty and Maintenance (five years including S/W & HW and Upgrades)

**(\*) Tenderers must offer an integrated MDM solution including above systems that enables EDCO to reach the smart grid. EDCO highly recommends all tenderers to perform a site survey ahead of bidding.**

**(\*\*) Right operation: "Go-live" & EDCO official approval for MDM complete operation with respects of above systems & meters (& meters growth).**

Tenderers are encouraged to propose a clear enhancement or additional works that may be seen necessary to maximize the benefits of the project or to cover any deficiency in the tender's scope, functional and technical requirements detailed hereunder.

EDCO, as a part of its smart meter roll-out project, is issuing a proposal for MDMs solutions with the following high-level characteristics:

- (1) Receive meters' data from Head end systems of **300,000** meters e.g the system shall be expandable where this number **300,000** is expected to grow by 4% yearly.
- (2) Act as the system of record for meter data including collection, validation, estimation, aggregation, and delivery of data to the billing system:
  - a) Store at least 36 months of interval data.
  - b) Act as the system of record for raw meter data.
  - c) Ensure data quality through validation, editing, and estimation (VEE).
  - d) Summarize data for billing purposes.
- (3) Make data available to users and upstream systems.
- (4) Manage meter reading schedules and process meter events, including routing them to appropriate systems.

The MDM is a scalable enterprise application which centralizes the collection, storage, and processing of meter and other meter related data.

The MDM is the system of record and provides long term storage for meter data including:

- Registers' readings including kWhr, kVARHr, tariffs, maximum demand
- Voltage data & Current.
- Tampering cases and outage flags (Voltage Dip & Current Loss).
- Energy & Power curves.

MDM is broadly configurable to enable the storage of any data that an electric meter can provide through the HES system. The MDM will process the data using a VEE engine and store all raw, validated, and estimated data in a relational database. The MDM isolates business systems and processes from the implementation details of the metering system and the collection of meter data.

MDM shall immediately flag for the tampering cases based on received data and data processing such as covers open, unbalance status, current loss, voltage dip, overloads, electrical losses, reverse power for nonrenewable energy meters...etc. Flags must be categorized in four levels.

Further to MDM functionalities, the MDM must be capable to perform mathematical operations as needed such as comparing between sending and receiving power & losses calculations that enables EDCO to determine the technical and nontechnical losses areas at LV and MV levels.

## 2.2. EDCO HIGH-LEVEL AMI ARCHITECTURE

The MDM will receive meter data from Head End Systems and after the verification of the data, will transmit the billing information to the EDCO's SAP system.

Tenderer shall submit a clear architecture of offered bid(s) clarifying the HESs, Meters, SAP, CYME, SCADA, GIS, Call center and communication.

## 2.3. PROJECT REQUIREMENTS

### 2.3.1. Security Compliance

2.3.1.1. If the MDM solution being proposed is hosted at external sites managed by the tenderer or tenderer's agent, the tenderer must ensure proper ongoing backup and storage of electronic data records

2.3.1.2. The tenderer shall provide documentation of third-party vulnerability assessments of their development, test and product delivery environments and systems

2.3.1.3. The tenderer shall inform EDCO whether there is any limitation for the proposed MDM to work with any of the mobile device management suites available in the market; if so, the tenderer shall detail the list of these suites with which the proposed MDM is not compatible with.

2.3.1.4. 8.10.4. The tenderer must also comply with ISO 27001

## 2.4. PROJECT DELIVERY COMPONENTS

### 2.4.1. Project Management

2.4.1.1. The PMO shall have dedicated project manager (PM) only for IT tasks

2.4.1.2. The high-level project plan and the resources' CVs must be shared

2.4.1.3. The PM shall submit daily and weekly reports

2.4.1.4. Relevant project documentation must include (but not limited to) the following:

- Risk register
- Issue register
- Action log
- Communication matrix
- Change request
- Process and system hand over

2.4.1.5. The tenderer shall provide project resources, roles and responsibilities. The project team shall comprise (but not limited to) the following:

- Product Architect
- Integration Manager
- Communication Engineer
- Application Engineer
- SAP Integration Expert
- Security Expert
- Security Engineer
- Network engineer
- Database Expert

2.4.1.6. The tenderer shall provide the risk matrix for the entire program for the various components of the project

2.4.1.7. The tenderer shall provide details about its competency center and support team

2.4.1.8. The tenderer shall provide the support mechanism for the application and software monitoring after implementation

2.4.1.9. The tenderer shall provide details about maintenance window and software release policy to be mentioned

2.4.1.10. The tenderer shall provide testing resource requirements

2.4.1.11. The tenderer shall provide the test plan

2.4.1.12. The tenderer shall mention the list of tools (if any) that are required for testing

2.4.1.13. All test scripts shall be provided by the tenderer

2.4.1.14. UAT sign off is the responsibility of the tenderer

2.4.1.15. Regarding governance and communication, the following items need to be covered during the project:

- Communication matrix
- Daily/weekly meetings
- Steering committee meetings
- Escalation matrix
- Governance model
- Proposed project team (from the tenderer side)

2.4.1.16. All tenderer's resources shall bring their own laptops and necessary equipment to carry out their day-to-day work



2.4.1.17. The tenderer shall deliver the following documents (but not limited to) as per the project phases:

- Requirement document
- Solution documents and presentation as required during various phases of the project
- Integration specification document (sequence/line diagram of end-to-end process with time intervals)
- SAP integration specification document
- Test scripts (test scripts containing the acceptance criteria of performance and success rate of process or request)
- Training manuals and recordings
- System hand over
- Other documents as required by the project (such as minute of meetings, solution presentation to management, etc.)
- Architecture design
- Hardware sizing and failover methodology o GAP analysis document o Incident reports
- Application installation and security certificate installation o Functional Specification document o Technical Specification document

2.4.1.18. The tenderer is required initiating the process of integration study at the beginning of the project

2.4.1.19. The tenderer is mandated furnishing a detailed project plan with parallel activities to this effect

2.4.1.20. The delivery of the project must be concluded in 9 months from the date of contract

2.4.1.21. System Testing

2.4.1.22. The tenderer shall provide SOAP UI service testing tools for stress testing and performance testing

2.4.1.23. The purpose of this test shall be to exercise the implemented MDM to verify the correct functional operation of all the supplied software and the supplied configuration. The system functional test shall include, but not be limited to, the following:

- Verification of all operational and maintenance functions
- Verification of all software functionality
- Verification of all secure access functions
- Demonstration of failover and restart processing

**The tenderer shall provide as-needed assistance in running the tests**

- 2.4.1.24. Verification of system performance shall be demonstrated. The Supplier shall discuss in the test procedure the method and any assumptions that will be used to verify that the MDM meets the performance specifications that will be agreed with EDCO
- 2.4.1.25. The MDM shall be subjected to an acceptance test by EDCO to satisfy the requirements given in this specification
- 2.4.1.26. The MDM shall be subjected to a routine test by EDCO or the tenderer to ensure continued satisfaction of functional and performance-based requirements given in this specification
- 2.4.1.27. The tenderer shall perform load, HA and DR tests. provide solution to ensure capacity, performance, and business continuity before go-live and use the same during production for diagnostic and testing purpose
- 2.4.2. Training:
  - 2.4.2.1. The tenderer shall provide trainings on the delivered HW and SW to EDCO team with detailed documentation and training materials
  - 2.4.2.2. The tenderer shall supply a training plan and associated onsite training classes
  - 2.4.2.3. The tenderer shall supply a copy of the proposal, user's guide, configuration guide, administration guide, installation guide, support guide for help desk, and training materials
  - 2.4.2.4. The tenderer shall supply digital copies of the staging table APIs specifications, manual data import/export specifications, RESTful API specifications, infrastructure, architecture, integration APIs, and data entity documents. Where applicable, these documents shall allow edits, and shall be provided in MS Office and PDF Format
  - 2.4.2.5. The tenderer shall supply functional, technical, interface and troubleshooting manuals
  - 2.4.2.6. The tenderer shall supply provide training on management of the MDM database, preparation of input and output data, and modifications to the MDM Database
  - 2.4.2.7. The tenderer shall provide training on management and maintenance of the MDM at the operating-system level inclusive of servers and workstations
  - 2.4.2.8. The tenderer shall provide training on management of communications including email, SMS from MDM and MDM communication with HES, as well as associated software and interfaces for these communications
  - 2.4.2.9. The tenderer shall provide training on controls, procedures, tools, and best practices for maintaining the security of the MDM and the systems with which it interfaces. This shall include user access management, role-based access control, and public key infrastructure (PKI) management
  - 2.4.2.10. The tenderer shall provide training on the back end and front-end MDM applications and their maintenance

2.4.2.11. The tenderer shall provide training on software maintenance and patch management

2.4.2.12. The tenderer shall provide training on details regarding systems with which the MDM interacts, the interfaces between them, the data exchanged, and the management of those interfaces and data exchanges

2.4.2.13. The tenderer shall provide an overview of hardware and software architecture, including key components, the relationships between those components, and information on the use and management of those components

2.4.2.14. The tenderer shall provide training on configuration of data and appearance of custom reports

2.4.2.15. Training shall be performed into three stages:

- Pre installation stage training
- Installation stage training (on job training)
- After handing over to EDCO training (Hands on training).

#### 2.4.3. Defect Liabilities Period

2.4.3.1. The system software maintenance responsibility during warranty shall include, but not be limited to, the following general types of activities:

- Corrections, including the design, implementation, and testing of modifications and corrections to any implemented system software that impacts the operation of the system and/or does not meet the technical requirements described in this document
- Coordination of software development activities necessary to correct any problems found by EDCO. The supplier will not be responsible for development activities directed by EDCO that are exceeding the contractual requirements

2.4.3.2. The tenderer shall guarantee the MDM against all defects arising out of faulty design or workmanship for a period of 18 months from the date of commissioning

2.4.3.3. The tenderer shall be responsible for applying for and obtaining all permits and trade licenses necessary to provide the services under the agreement. The tenderer shall satisfy itself as to the procedures and timeframes required for such consents and trade licenses. It is emphasized that the responsibility for identifying and obtaining the consents and licenses rests solely with the tenderer

## **2.5. DATA MIGRATION**

- 2.5.1. The tenderer shall provide a detailed description of how it intends to manage the data cleansing & migration process taking into consideration that any data cleansing and data migration are tenderer responsibility.
- 2.5.2. The data migration process is related to all data from the designated master utility system(s) including data for meters and other devices, meter route, customer, premise, account, billing cycle, configuration, communication etc.: this is about the initial data loading in the MDM and can include previous usage also.
- 2.5.3. Data migration process is tenderer responsibility: the tenderer must quote it and EDCO will decide whether to purchase the service or not.

## **2.6. HARDWARE REQUIREMENTS**

- 2.6.1. The tenderer shall provide the hardware sizing document to run the MDM software for EDCO's needs
- 2.6.2. The tenderer shall quote the hardware components and EDCO will decide whether to purchase the hardware components or not.

## **2.7. MAINTENANCE AND WARRANTY**

- 2.7.1. An 18 months warranty period is mandatory for all services, software and hardware including 24/7 SLA for all parts of the scope of supply starting from the date of handing over the project to EDCO. Then, a five (5) years maintenance support must be a part of the offer starting at the end of the 18 months period of warranty completion. Tenderer shall submit 5% maintenance bond of the total offer after warranty completion.
- 2.7.2. The tenderer must provide support on an ongoing basis for the application, database, installation and configuration of new releases, software updates, software upgrade, patches installation and integration requirements.
- 2.7.3. The tenderer must provide proposed service levels and response/resolution times for issues that might arise from the solution and is required to provide a commercial proposal for the 5 years maintenance support.
- 2.7.4. Tenderer must include in his offer an annual technical support maintenance agreement along with required spare parts.
- 2.7.5. In warranty and maintenance periods, EDCO are free to contact directly with the MDM manufacturer in case of slow response from the tenderer. Manufacturer is considered a part of warranty and maintenance contracts.
- 2.7.6. The intervention times after reporting a fault and request for assistance is 3 hours by phone/e-mail/remote connection to MDM, and maximum 48 hours for physical intervention by a Specialist(s) at site in case the fault is not cleared and system not restored by phone/e-mail/remote connection to MDM assistance.
- 2.7.7. Spare parts in both warranty and maintenance are tenderer responsibilities and must be included in the offer.

## 2.8. INSTALLATION AND SET UP PERIOD

- 2.8.1. The project shall be handed over to EDCO within nine (9) months from the date of official awarding letter receipt.
- 2.8.2. Working Methodology: Tenderer shall submit a comprehensive work plan, including working staff and working staff qualifications.
- 2.8.3. Integration works: Tenderer must be capable to do the integration works if needed without any support from EDCO, integration works with existing systems are a major part of Tenderer works.
- 2.8.4. Compliance sheet shall be submitted along with clear list of deviation.

## 2.9. OTHER REQUIREMENT

- 2.9.1. **Mobile application** is a part of tenderer scope; the mobile application shall be based on MDM software but limited to a selective function such:
  - Meters' connection/disconnection groups
  - Meters' geographical locations
  - Meters' connection/disconnection
  - Daily connected / disconnected meters
  - Total daily invoicing (JoD) ...etc.
- 2.9.2. Intelligent collection service shall be handled by MDM through a payment application such as eFwatercom & EDCO SAP system.
- 2.9.3. Anyhow, it's not EDCO responsibility to contact with software supplier(s) neither service provider(s) as Holley, Hexing CYME...etc but EDCO will support & with no any liability to EDCO.
- 2.9.4. EDCO has the right to directly contact with manufacturer and to sign any technical support agreement with MDM manufacturer without reverting back to the local agent after warranty period without any legal or financial obligations at EDCO.
- 2.9.5. For disputes adjudication, an Engineer(s) shall be proposed by the tenderer & subjected to EDCO approval.
- 2.9.6. One Arabic speaker (native) must be within the nominated PM staff.
- 2.9.7. Tenderer might be instructed to use EDCO existing backup and firewall systems:
  - Back-up : NETBACKUP FLEX APPLINCE5250-10TB-36TB
  - Firewall: FORTIGATE 1800F

## 2.10. EVALUATION & QUALIFICATION CRITERIA

- To EDCO, the tenderer must be the MDM manufacturer; or has a clear consortium or joint venture agreement with the MDM manufacturer.
- Data Schedules (A to F) must be filled upon tenderer submittal. The submittal must be arranged in four (4) parts 12.1 to 12.4 as the following contents with one hard copy, and two e-copies “excluding price schedule G”:

### 2.10.1. Commercial Qualifications:

- 1) MDM reference list supported by End User Certificate; for:
  - a. Middle East.
  - b. Other countries.
  - c. Similar two MDM (Electrical) projects, each project must be  $\geq 70\%$  completed project(s) & 500,000 MDM Meters.
- 2) Local office in Jordan with CR certificate.
- 3) Working staff CVs: project manager, (3) MDM specialists & (4) technical implementers, (Unchangeable in THE project life time) declare their availability in Jordan.
- 4) Proposed Engineer(s) C.V. for contractual disputes adjudication.
- 5) Financial signed auditor report in last five years (Preferable in USD)
- 6) Bank statement confirm tenderer’s liquid asset along with a letter of authority to EDCO enabling EDCO to contact with the bank(s)
- 7) All needed certificates, authority letters, JV/consortium requirements in schedule A & schedule (B).
- 8) Division of Responsibilities DoR for the local partner.

### 2.10.2. MDM solution

- 1) MDM offered product.
- 2) EDCO technical specifications’ Statement of compliance, and departure list for any.
- 3) Documents and APIs that proves MDM easy integration with EDCO systems, especially HESs along proof of concept examples for Holley, Hexing & SAP systems, and integration challenges.
- 4) Offered MDM description:
  - a) HW & SW sizing calculations.
  - b) List of Hardware & List of software
  - c) Licensing (HW/SW/Extensions)
  - d) Scalability & system enlargement tools after certain number of years.
  - e) Concept of obsolete product and future replacement methodology after end of asset lifetime.

- f) Concept of VM versus Hardware Servers.
  - g) VEE; Validate, Estimate & Edit concepts.
  - h) ESB
  - i) Mobile Application.
  - j) Firewall & Cyber Security
  - k) 50 Minimum reports :30 standard reports & 20 future reports to be established upon EDCO needs.
  - l) Reporting tool(s)
- 5) Solution Architecture (in layer basis) including :
- Main system
  - DR system
  - Back-up system
  - Operating system & HMI
  - Firewalls
  - Communication System
  - ESB
  - EDCO Systems
- 6) EDCO users' category.
- 7) Warranty & Maintenance:
- A) Warranty (18 months from project hand-over to EDCO)
- Ticketing system
  - Hotlines & contacts.
  - 24/7 services
  - Response time categories.
- B) Maintenance (5 Years from warranty completion)
- Tech support agreement
  - SW upgrade/ update plan
  - HW replacement plan
  - List of five years spare parts
  - Ticketing system
  - Direct contact with manufacturer

#### **2.10.3. Project Plan:**

- 1) 9 Months MS project time line.
- 2) QA/QC Plan.
- 3) Project bi-weekly progress report forms.
- 4) Working methodology.
- 5) ESB establishment phase.
- 6) Data cleansing & data migration plan
- 7) Integration plan.
- 8) Training plan referring to 9.1.3.15 categories.
- 9) FAT plan including performance and stress test.
- 10) Test plans & soft start plan (500 meters)
- 11) Put into service criteria.
- 12) Go-live & Project hand-over to EDCO.

#### **2.10.4. Data Schedules:**

- **Tenderer must submit filled and stamped data schedules from schedule A to Schedule H.**
- **Tenderer must submit stamped copy of Appendix 1 (Eligible Tenderers).**
- **Tenderer must mention the reference documents (page and paragraph) that support his compliances.**
- **Offer Financial values must be unified.**
- **Schedule (G) Price Schedule must be in a separate sealed envelope and not a part of e-copies.**



## **SCHEDULE (A) FINANCIAL CONDITIONS**

#	Condition	Reference Document
<b>1</b>	<b>Delivered services value for last five years must be greater than 2 M USD in each year.</b>	
	Year 2019	
	Year 2020	
	Year 2021	
	Year 2022	
	Year 2023	
<b>2</b>	<b>Similar MDM two projects, each project must be <math>\geq 70\%</math> completion &amp; 500,000 MDM Meters, tenderer to select two projects from his reference list supported by end user certificate or equivalent.</b>	
	Project # 1	Country:..... Utility Name: ..... Utility core business:..... Value (USD) :..... Project up to date Completion % ..... Awarding date:..... Contact person Tel # .....Email.....
	Project # 2	Country:..... Utility Name: ..... Utility core business:..... Value (USD) :..... Project up to date Completion % ..... Awarding date:..... Contact person Tel # .....Email.....
<b>3</b>	<b>Tenderer experience in Middle East</b>	Type of experience: ..... Clients: ..... Country: .....
<b>4</b>	<b>Local office in Jordan</b>	Name: ..... CR registration No..... Business description:.....
<b>5</b>	<b>Working Staff Qualifications: comprehensive CVs must be included in tenderer offer.</b>	
	Project Manager	Name : ..... Nationality : ..... Age:..... Total Experience years :..... Total experience years as MDM team Leader.....
	<b>Three MDM Specialists</b>	
	<b>1)</b>	Name : ..... Nationality : ..... Age:..... Total experience years Total Experience years in MDM:.....

#	Condition		Reference Document
	2)	Name : ..... Nationality : ..... Age: ..... Total experience years Total Experience years in MDM: .....	
	3)	Name : ..... Nationality : ..... Age: ..... Total experience years Total Experience years in MDM: .....	
	Four Certified Technical Implementers		
	1)	Name : ..... Nationality : ..... Age: ..... Total experience years ..... Total Experience years in MDM: .....	
	2)	Name : ..... Nationality : ..... Age: ..... Total experience years ..... Total Experience years in MDM: .....	
	3)	Name : ..... Nationality : ..... Age: ..... Total experience years ..... Total Experience years in MDM: .....	
	4)	Name : ..... Nationality : ..... Age: ..... Total experience years ..... Total Experience years in MDM: .....	

#	Condition	Reference Document
6	<b>Tenderer annual profit in last five years : supportive financial statement report signed by a third party auditor, (currency preferable in USD)</b>	
	Auditor name ..... Profits : 2019: ..... 2020: ..... 2021: ..... 2022: ..... 2023: .....	
7	<b>Proof of liquid assets; The minimum amount of liquid assets and/or credit facilities net after other contractual commitments shall be <math>\geq 500,000</math> USD</b>	- Bank : ..... - Value .....

### **SCHEDULE (B) COMMERCIAL STATEMENTS**

This schedule must be filled by tenderer in line with his offer, tenderer to refer to the supportive documents (page & paragraph); supportive documents must be included in the main offer.

#	Condition/statement	Tenderer comment	Reference document
1.	Who submitted the offer documents to EDCO		
2.	What is the relation between offer submitter and tenderer?		
3.	Tenderer shall submit a detailed contractual obligation supported by documents such as un priced PO(s)		
4.	Tenderer shall submit a certificate defining his capability in executing a such services stated in technical specifications		
5.	Letter of authorization enabling EDCO to contact with related banks		
6.	Tenderer shall submit the legal litigations last five years describing the amount and status of each case.		
7.	List of subcontractors if subcontracting value are $\geq 10\%$ of the offer value.		
8.	In case of consortium or joint venture, a copy of joint venture or consortium contract signed from all parties must be submitted; where one party must be nominated to be responsible in front of EDCO, and all parties, together or individual are responsible in front of EDCO. Further, scope of each party must be clearly defined.		
9.	This is not a Multiple Contract, tenderer to confirm (Y/N)		
10.	Alternative solution(s) are not a part of tenderer offer, tenderer to confirm (Y/N)		

### **SCHEDULE (C) WORK PLAN**

Tenderer shall submit comprehensive work plan with MS project sheet, the expected project life time shall not exceed nine (9) months.

	<b>Activity</b>	<b>Time in Weeks</b>
	Awarding letter receipt	
	Kick off meeting	
	Mobilization	
	Base design submittal & EDCO approval	
	Detailed design submittal & EDCO approval	
	FAT including performance and stress tests.	
	Materials delivery	
	Data cleansing & data migration	
	ESB establishment & integration with EDCO systems	
	Hands on training	
	Soft start	
	Project handing over to EDCO	
	Punch list clearance plan	
	Go-live & Final Acceptance Certificate by EDCO	
	<b>Total Project Life Time in Months</b>	

#### **SCHEDULE (D) TECHNICAL SPECIFICATIONS**

Technical offer specifications shall be in line with tender documents, otherwise, a departure list in schedule (E) must be submitted next to this schedule. Please fill the following compliance / notes for MDM tender technical requirements (main and subsequent -Items 3 – 11):

#	Specification	Comply with EDCO Specifications ( Y/N)
	EDCO High level AMI architecture	
	<a href="#">General requirements</a>	
	<a href="#">Advanced requirements</a>	
	<a href="#">System usability &amp; user interface</a>	
	<a href="#">Technology requirements</a>	
	<a href="#">Security requirements</a>	
	<a href="#">Project requirements</a>	
	<a href="#">Installation and set up period</a>	
	<a href="#">Other requirement</a>	

**SCHEDULE (E) DEPARTURE LIST**

Tender must mention any deviation/ departure from EDCO specifications as follows:

[illegible]

#### **SCHEDULE (F) MATERIALS & EQUIPMENT MANUFACTURER**

	<b>Material / Equipment/ SW</b>	<b>Manufacturer &amp; Land of Origin</b>
1	MDM	
2	Operating system	
3	Data base	
4	Servers	
5	ESB	
6	Firewall	
7	Mobile Application	
8	Communication	
9	Servers	
10	Others	



**SCHEDULE (G) PRICE SCHEDULE (\*) CURRENCY .....**

#	Description	Unit Price	Qty	Total Price
1.	<b>Design</b>			
2.	<b>Implementation &amp; Configuration</b>			
3.	<b>Data Cleansing &amp; Data Migration</b>			
4.	<b>Enterprise Service Bus &amp; Integration with EDCO systems</b>			
a	- HES Type Holley			
b	- HES Type Hexing			
c	- SAP			
d	- GIS			
e	- SCADA DMS			
f	- CYME			
g	- AVAYA			
5.	<b>HW: 300,000 Meters Size, 15 Min Interval, 18 Months Warranty</b>			
a	- MDM			
b	- Disaster Recovery			
c	- Back-up System			
d	- Firewall			
e	- Communication System			
f	- 10,000 Meters Extension			
6.	<b>SW : 300,000 Meters Size, 15 Min Interval, 18 Months Warranty</b>			
a	- MDM			
b	- Disaster Recovery			
c	- Back-up System			
d	- Firewall			
e	- Operating System			
f	- Communication System			
g	- 10,000 Meters Extension			
7.	<b>Maintenance –Yearly Basis -</b>			
a	- Five Years Maintenance Including Upgrade/ Update For Item 6			
b	- Five Years Maintenance Including Upgrade/ Update For Item 7			
8.	<b>FAT on Manufacturer Country per EDCO Engineer</b>			
9.	<b>Testing &amp; Commissioning</b>			
10.	<b>Training per EDCO Engineer</b>			
a	- Pre installation stage training			
c	- Installation stage training (on job training)			
b	- After handing over to EDCO training (Hands on training).			

#	Description	Unit Price	Qty	Total Price
11.	<b>Application &amp; License Cost: 15 minutes interval &amp; 300,000 meters</b>			
a	- MDM Software			
b	- Operation Systems			
c	- Additional Software (Migration & Integration)			
d	- Additional License Cost for 10,000 Meters			
12.	<b>Mobile Application</b>			
13.	<b>Others (Please Specify)</b>			
<b>Total Price Excluding VAT</b>				
<b>Offer Price per Meter</b>				

**(\*) Important Notes:**

- EDCO has the right in partial award.
- Offer prices must be fixed for five years from awarding date.
- This price schedule must be filled upon a complete MDM solution, in case of any extra services or materials please write it only under item # 13 with the reason behind extra works, materials or services.
- Multiple contracts and/or multiple solutions are not accepted to EDCO.
- FAT must be fully booked with five working days.

**SCHEDULE (H) PAYMENT SCHEDULE**

EDCO prefer to go for tender payment terms and tenderer can propose a negotiable payment term (here) subjected to EDCO approvals.

## Appendix 1 (Eligible Tenderers)

1. Tenderer may be a firm that is a private entity, a state-owned entity or institution subject to (5) in below, or any combination of such entities in the form of a Joint Venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. Unless specified in the BDS, there is no limit on the number of members in a JV.

2. Tenderer shall not have a conflict of interest. Any Tenderer found to have a conflict of interest shall be disqualified. A Tenderer may be considered to have a conflict of interest for the purpose of this Bidding process, if the Tenderer:

a) directly or indirectly controls, is controlled by or is under common control with another Tenderer; or

b) receives or has received any direct or indirect subsidy from another Tenderer; or

c) has the same legal representative as another Tenderer; or

d) has a relationship with another Tenderer, directly or through common third parties, that puts it in a position to influence the Bid of another Tenderer, or influence the decisions of the Employer regarding this Bidding process; or

e) if any of its affiliates participated as a consultant in the preparation of the Employer's Requirements (including Price Schedules, Performance Specifications and Drawings) for the Non-Consulting Services that are the subject of the Bid; or

f) if any of its affiliates have been hired (or are proposed to be hired) by the Employer for the Contract implementation; or

g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of this project that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or

h) has a close business or family relationship with a professional staff of the Employer who:

(i) are directly or indirectly involved in the preparation of the bidding document or specifications of the contract, and/or the Bid evaluation process of such contract; or

(ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Employer's management throughout the procurement process and execution of the Contract.

3. A firm that is a Tenderer (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a subcontractor. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Tenderer or a JV member, may participate as a sub-contractor in more than one Bid.

4. A Tenderer that has been sanctioned by the Government of Jordan, shall be ineligible to be qualified for this Bidding.

5. Tenderers that are state-owned enterprises or institutions in Jordan may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Employer, that they: (i) are legally and financially autonomous; (ii) operate under commercial law; and (iii) are not under supervision of the Employer.
6. A Tenderer shall not be under suspension from Bidding by the Employer.
7. Firms and individuals may be ineligible:
  - a) As a matter of law or official regulations if Jordan prohibits commercial relations with that country; or
  - b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, if Jordan prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.
8. This Bidding is open for all eligible Tenderers.
9. A Tenderer shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.

## **Appendix (2) Clarifications:**

The Employer shall use the criteria and methodologies listed in this Section to evaluate Bids. By applying these criteria and methodologies, the Employer shall determine the most advantageous Bid. This is the Bid that has been determined to be:

- a) substantially responsive to the bidding document, and
- b) the lowest evaluated and negotiated cost (Upon EDCO interest, EDCO preserve its right to conduct negotiations with up to the lowest 3 technically viable Tenderers). EDCO is not obliged to award the contract to the lowest evaluated price Tenderer.

### **1. Evaluation**

#### **1.1 Adequacy of Technical Proposal**

Evaluation of the Tenderer's Technical Proposal will include an assessment of the Tenderer's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Employer's Requirements.

The Tenderer must comply with all requirements mentioned in Employer's Requirements on pass/fail basis. Non-compliance with any of the requirements may result in the rejection of the bid. The Financial Bids will be opened of only those Tenderers who complied with all requirements mentioned in Employer's Requirements.

#### **1.2 Multiple Contracts ( N/A )**

#### **1.3 Alternative Technical Solutions for specified parts of the Services is not allowed**

### **2. Qualification**

All Tenderers shall include the following information and documents with their Bids:

- a) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Tenderer
- b) Total monetary value of Services performed for each of the last five years.
- c) Experience in Services of a similar nature and size for each of the last five years, and details of Services under way or contractually committed; and names and address of clients who may be contacted for further information on those contracts.
- d) List of major items of equipment proposed to carry out the Contract.
- e) Qualifications and experience of key site management and technical personnel proposed for the Contract.
- f) Reports on the financial standing of the Tenderer, such as profit and loss statements and auditor's reports for the past five years.
- g) Evidence of adequacy of working capital for this Contract (access to line(s) of credit and availability of other financial resources).
- h) Authority to the Employer to seek references from the Tenderer's bankers.
- i) Information regarding any litigation, current or during the last five years, in which the Tenderer is involved, the parties concerned, and disputed amount.

j) Proposals for subcontracting components of the Services amounting to more than 10 percent of the Contract Price; and Bids submitted by a joint venture of two or more firms as members shall comply with the following requirements, unless otherwise stated below:

- The Bid shall include all the information listed above for each joint venture member.
- The Bid shall be signed so as to be legally binding on all members.
- The Bid shall include a copy of the agreement entered into by the joint venture members defining the division of assignments to each member and establishing that all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms: alternatively, a Letter of Intent to execute a joint venture agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed agreement.
- One of the members shall 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.

**To qualify for award of the Contract, Tenderers shall meet the following minimum qualifying criteria:**

- a) Annual volume of Services of at least the amount specified below;
- b) Experience as service provider (experience should be shown in both, as an MDM supplier and System Integrator) in the provision of at least two service contracts of a nature and complexity equivalent to the Services over the last 5 years (to comply with this requirement, Services contracts cited should be at least 70 percent complete)
- c) Suitably qualified key personnel and other key personnel that the Tenderer considers appropriate to perform the Services; and
- d) Liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract.

**A consistent history of litigation or arbitration awards against the Tenderer or any member of a Joint Venture may result in disqualification.**

### Qualification Requirements

<b>Joint Ventures</b>	The information needed for Bids submitted by joint ventures is as follows: Information mentioned above for Joint Venture form (a) to (d).
<b>Annual Volume</b>	The minimum required annual volume of Services for the successful Tenderer in any of the last five years shall be: USD 2,000,000
<b>Experience</b>	The experience required to be demonstrated by the Tenderer should include as a minimum that he has executed during the last 5 years the following: 1. Participation in at least two (2) contracts that has been successfully completed and that is similar in nature and scope to the supply and services as described in Employer's Requirements. The similarity of the participation shall be based on the physical size (not less than 500,000 meters for each implementation), nature of works, complexity, methods, technology, or other characteristics as described in Employer's Requirements. 2. The Contractor must show experience in the region (Middle East region). 3. The Contractor must have representation office in the region (Middle East region).
<b>Key Personnel</b>	<b>One</b> Project Manager with at least 20 years general experience and 5 years' experience in leading Teams for MDM Projects. <b>Three</b> Functional Specialists with at least 10 years and 3 years' experience in MDM implementation. <b>Four</b> Technical Implementors/Configurators with at least 10 years and 3 years' experience in MDM implementation. <b>The</b> Contractors are encouraged to propose additional staff beside those mentioned above.
<b>Liquid Assets</b>	The minimum amount of liquid assets and/or credit facilities net of other contractual commitments of the successful Tenderer shall be $\geq$ 500,000 USD
<b>Subcontractors</b>	Subcontractors' experience shall be taken into account.

Figures for each of the members of a joint venture shall be added together to determine the Tenderer's compliance with the minimum qualifying criteria of (a), (b) and (e); however, for a joint venture to qualify the member in charge must meet at least 60 percent of those minimum criteria for an individual Tenderer and other members at least 40% of the criteria. Failure to comply with this requirement will result in rejection of the joint venture's Bid. Subcontractors' experience and resources will be taken into account in determining the Tenderer's compliance with the qualifying criteria.



## 3. INSTRUCTIONS TO BIDDERS

### 3.1. SPECIAL CONDITIONS

#### 3.1.1. TECHNICAL PROPOSAL

The Bidder is required to submit a comprehensive technical proposal, providing both a hard copy and a soft copy stored on a CD or flash card and no later than [1.05.2024] to the addresses mentioned in the "Counterpart and communication" section below. The proposal should include the following information:

- Firm's references: The bidder is requested to furnish a minimum of two references for analogous projects completed in the last five years (at least one project 100% complete the 2<sup>nd</sup> project with more than 70% completion for both MDM and ERP). These references should ideally include end-user certificates, providing evidence of successful project completion and user satisfaction. These references will be instrumental in evaluating the vendor's experience and competence in similar projects. Relevant and equivalent projects conducted by the Bidder.
- The bidder will be disqualified and dismissed from the competition if they do not have previous experience in the utilities industry.
- Comments and suggestions of the Bidder on the Terms of Reference and on data, services, and facilities to be provided by the client.
- Description of the methodology and work plan for performing the assignment.
- Team organizational structure and task assignments.
- The curriculum vitae (CV) for the proposal staff team by specialty, the tasks that would be assigned, and their timing.
- Any additional information the Bidder deems relevant for the accomplishment of the tasks.
- Comments on the scope of work and individual tasks of the assignment.
- The winning bidders/bidder shall bear the announcement costs in the local newspapers, no matter how often the announcement has been posted.
- A nonrefundable fee of (550) JD will be charged for each set comprising one copy of the Tender Documents.

### 3.1.2. TECHNICAL EVALUATION

The evaluation of the Technical Proposal will be done according to the following criteria to obtain the technical score (TS).

Under 'Qualifications and competencies of the Bidder's team components,' the following items will be evaluated:

- 3.1.2.1. The criteria will evaluate the capability to ensure strict compliance with all specified requirements outlined in the Requirement Specification document.
- 3.1.2.2. The criteria will evaluate a seasoned team with relevant expertise and demonstrated experience in successfully executing projects of similar scope and complexity.
- 3.1.2.3. The criteria will evaluate prior experience in the Utilities industry, demonstrating a proven track record of successfully delivering projects within this sector.
- 3.1.2.4. The criteria will evaluate a local agent or Jordan office to provide local support at short notice and Arabic language capabilities.
- 3.1.2.5. The criteria will evaluate the capability to ensure full compliance with all requirements outlined in the Request for Proposal (RFP) document.
- 3.1.2.6. The criteria will evaluate a robust MDM offering, demonstrating expertise in efficiently managing and maintaining high-quality data.
- 3.1.2.7. The criteria will evaluate the required deliverables as specified in the RFP, ensuring timely and comprehensive submission of all necessary outputs.
- 3.1.2.8. The criteria will evaluate proficiency in Change Management, exhibiting the ability to effectively plan, communicate, and implement changes while minimizing disruptions and ensuring successful adaptation within the project or organizational context.
- 3.1.2.9. The criteria will evaluate a comprehensive post-implementation strategy, ensuring ongoing support, monitoring, and optimization after the project's completion to guarantee its sustained success.
- 3.1.2.10. The criteria will evaluate robust training capabilities, demonstrating the expertise to design and deliver effective training programs that align with project requirements and facilitate knowledge transfer to end-users.

Description	Points
Requirement Specification compliance	20
Team Experience	6
Experience in Utilities industry	4
Presence in Jordan and Arabic Language Capabilities	4
Compliance to RFP	16
MDM Offering	4
Required Deliverables	4
Change Management	4
Post Implementation	4
Training Capabilities	4
<b>Total Points</b>	<b>70</b>

For qualifying as admissible to the financial evaluation, the Bidder's technical score shall be higher or equal to **50 points**.

### 3.1.3. FINANCIAL PROPOSAL

The financial proposal shall be as per above required pricing structure including the pricing for each of the tasks, man-days price and items listed in the technical proposal.

The financial proposal should be submitted in a separate sealed envelope, jointly with the Technical Proposal, to the project management team in one hard copy and one soft copy (on a CD). The client will be asked to submit a 5% bid bond In a separate sealed envelope that will be released on awarding the tender.

Financial offers must remain valid for a period of 90 days after the submission date and must contain the suggested time schedule for the payments. The client will ask the winning bidder to submit a 10% Performance bond at the signing of the contract.

The performance bond should be valid up to the final written acceptance by EDCO for implementation and training, this bond will be returned back to the awarded bidder after submitting maintenance bond equal to (5%) of the contract value to cover the warranty period 24 or 36 months (*to be determined*) from the date of EDCO's final acceptance letter.

#### FINANCIAL EVALUATION

Financial proposals' envelopes will not be open until the date indicated by the client, which in any case will be after concluding the technical evaluation.

The evaluation of the financial proposals will be done according to the following criteria based on the financial offers whose related technical offer qualified as admissible:

$$FS = 100 \times (BF/F)$$

Where,

FS = financial score

BF = Lowest financial offer

F = financial offer under evaluation

#### OVERALL SCORE

After the calculation of the financial score for every qualified offer, the overall score (OS) will be calculated based on the following formulae:

$$OS = 0.70 \times TS + 0.30 \times FS$$

The winning Bidder will be whose offer (technical and financial proposals) obtains the highest overall score.

#### **3.1.4. SELECTION CRITERIA**

After evaluating Technical Proposals, the three highest-ranked Bidder may be called for a meeting/presentation with the client, provided they have individually achieved the minimum score stipulated below. In this meeting, the approach to be used for obtaining the decided results will be presented and discussed. The objective of this presentation is to share and clarify eventual questions, comments, and suggestions the Bidder or the client may have on the contents of the TENDER and the technical proposal.

The client will agree with the Bidder on the date of the presentation and will give at least 7 days' notice.

#### **3.1.5. PAYMENT SCHEDULE**

The schedule of payments will be negotiated with the winning bidder. The Bidder shall include a proposal for this calendar of payments within its financial offer, which will be used as a reference during the mentioned negotiations.

#### **3.1.6. NON- DISCLOSURE AGREEMENT**

As the information and documents provided by the client are considered confidential, the Bidder is requested to sign the Non-Disclosure Agreement (NDA) in Annex (1) before signing the contract.

#### **3.1.7. POWER OF ATTORNEY**

An authorized representative of the Bidder shall initiate all pages of the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the proposal or in any other form demonstrating that the representative has been fully authorized to sign. The signed Technical and Financial Proposals shall be marked "Original".

#### **3.1.8. DELAY PENALTY**

If the Bidder fails to execute the required task within contractual execution period, the Purchaser has the right to deduct of the price payable under contract value without any objection by second party (Bidder). This deduction shall be calculated at the rate of one half of one percent (0.5%) of that part of the price payable (task value) for each complete week of delay commencing on the due date of delivery, but shall not exceed a maximum percentage deduction of ten percent (10%) from contract value.

### 3.1.9. COUNTER PART AND COMMUNICATION

All communication regarding this project will be addressed to EDCO Project Manager.

Communication with EDCO can be addressed to the following e-mail and formal proposal can be submitted to the following address:

**Address:**

Electricity Distribution Company  
The Hashemite Kingdom of Jordan  
Web site : [www.edco.jo](http://www.edco.jo)  
Fax: +962 6 5341213  
P.O. Box 830878 Amman 11183

### 3.1.10. OTHER CONDITIONS

- The financial proposal should be sealed under a separate envelope.
- Proposals and attachments should be submitted in English.
- The Bidder shall comply with Jordanian applicable laws.

### TENDER Timeline

Description	Date	No. of Days
RFP Issued by EDCO	18.03.2024	0
Bidder Questions and Comments Due	02.04.2024	15
EDCO Responses to Bidder Questions and Comments	17.04.2024	15
Proposal (Technical & Financial) Submission Deadline	01.05.2024	14

## 3.2. TECHNICAL PROPOSAL - STANDARD FORMS

### 3.2.1. FORM TECH-1: TECHNICAL PROPOSAL SUBMISSION FORM

---

[Location,  
Date]To: H.E. Director  
General of Electricity Distribution Company [EDCO]

Dear Sir

We, the undersigned, offer to provide the implementing services for [Insert title of assignment] in accordance with your Tender dated [Insert Date] and our Proposal. We are hereby submitting our proposal, which includes this Technical Proposal, and a Financial Proposal sealed under a separate envelope.

We are submitting our proposal in association with: [Insert a list with full name and address of each associated Bidder].

We hereby declare that all the information and statements made in this proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity (90 days) of the proposal, we undertake to negotiate on the basis of the proposed staff. Our proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if our proposal is accepted, to initiate the implementing services related to the assignment not later than **two working weeks** after Contract signature

We understand you are not bound to accept any Proposal you receive.

Yours sincerely,

Authorized Signature [In full and initials]:

---

Name and Title of Signatory:

---

Name of Firm:

---

Address:

---

### 3.2.2. FORM TECH-2: BIDDER'S ORGANIZATION AND EXPERIENCE

#### BIDDER'S ORGANIZATION

*[Provide here a brief (two-four pages) description of the background and organization of your firm/entity and each associate for this assignment.]*

#### BIDDER'S EXPERIENCE

*[Using the format below, provide information on each assignment for which your firm, and each associate for this assignment, was legally contracted either individually as a corporate entity or as one of the major companies within an association, for carrying out implementing services similar to the ones requested under this assignment. Use 20 pages.]*

Assignment name:	Approx. value of the contract (in current US\$ or Euro):
Country: Location within country:	Duration of assignment (months):
Name of Client:	Total N° of staff-months of the assignment: -
Address:	Approx. value of the services provided by your firm under the contract (in current US\$ or Euro):
Start date (month/year): Completion date (month/year):	N° of professional staff-months provided by associating Bidder: -
Name of associated Bidder, if any:	Name of senior professional staff of your firm involved and functions performed (indicates most significant profiles such as Project Director/Coordinator, Team Leader):
Narrative description of project:	
Description of actual services provided by your staff within the assignment:	

Firm's Name: \_\_\_\_\_

### 3.2.3. FORM TECH-3: COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE

*[Present and justify here any modifications or improvement to the Terms of Reference you are proposing to improve performance in carrying out the assignment (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your proposal.]*

### 3.2.4. FORM TECH-4: DESCRIPTION OF APPROACH, METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT

*[Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal (50 pages, inclusive of charts and diagrams) divided into the following three chapters:*

- *Technical Approach and Methodology,*
  - *Work Plan, and*
  - *Organization and Staffing]*
- a. Technical Approach and Methodology In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.
- b. Work Plan In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the client), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing an understanding of the TENDER and the ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule of Form TECH-8.
- c. Organization and Staffing In this chapter you should propose the structure and composition of your team. You should list the main disciplines of the assignment, the key expert responsible, and the proposed technical and support staff.]



### 3.2.5. FORM TECH-5: TEAM COMPOSITION AND TASK ASSIGNMENTS

Professional Staff				
Name of Staff	Firm	Area of Expertise	Position Assigned	Task Assigned

### 3.2.6. FORM TECH-6: CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

1. **Proposed Position:**

2. **Name of Firm** *[Insert name of firm proposing the staff]:* \_\_\_\_\_

3. **Name of Staff** *[Insert full name]:* \_\_\_\_\_

4. **Date of Birth:** \_\_\_\_\_ **Nationality:** \_\_\_\_\_

5. **Education** *[Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment]:*

6. **Membership of Professional Associations:**

7. **Other Training** *[Indicate significant training since degrees under 5 - Education were obtained]:* \_\_\_\_\_

8. **Countries of Work Experience:** *[List countries where staff has worked in the last ten years]:* \_\_\_\_\_

9. **Languages** *[For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]:*

10. **Employment Record** *[Starting with the present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held.]:*

From [Year]: \_\_\_\_\_ To [Year]: \_\_\_\_\_

Employer:

Positions held:

### 11. Detailed Tasks assigned

*[List all tasks to be performed under this assignment]*

### 12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

*[Among the assignments in which the staff has been involved, indicate the following information for those assignments that best illustrate staff capability to handle the tasks listed under point 11.]*

Name of assignment or project: \_\_\_\_\_

Year: \_\_\_\_\_

Location: \_\_\_\_\_

Client: \_\_\_\_\_

Main Project features: \_\_\_\_\_

Positions held: \_\_\_\_\_

Activities performed: \_\_\_\_\_

### 13. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

\_\_\_\_\_, Date: \_\_\_\_\_

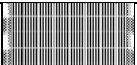










*[Signature of staff member or authorized representative of the staff]*

*Day/Month/Year*

Full name of authorized representative:

\_\_\_\_\_

### 3.2.7. FORM TECH-7: STAFFING SCHEDULE 1

N°	Name of Staff	2.2.8 STAFF INPUT (IN THE FORM OF A BAR CHART) <sup>2</sup>											2.2.9 TOTAL STAFF-MONTH INPUT		
		1	2	3	4	5	6	7	8	9	10	N	Home	Field <sup>3</sup>	Total
<b>Foreign</b>															
1		[Home]													
		[Field]													
2															
															
															
															
n															
															
											<b>Total</b>				

1 For Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category (e.g.: draftsmen, clerical staff, etc.).

2 Months are counted from the start of the assignment. For each staff indicate separately staff input for home and fieldwork.

3 Field work means work carried out at a place other than the Bidder's home office.



Full time input



Part time input

### 3.2.8. FORM TECH-8 WORK SCHEDULE

N°	Activity <sup>1</sup>	Months <sup>2</sup>												
		1	2	3	4	5	6	7	8	9	10	11	12	n
1														
2														
3														
4														
5														
N														

- 1 Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks such as Client approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.
- 2 Duration of activities shall be indicated in the form of a bar chart.

### 3.3. FINANCIAL PROPOSAL - STANDARD FORMS

#### 3.3.1. FORM FIN-1: FINANCIAL PROPOSAL SUBMISSION FORM

[Location, Date]

To: H.E. Director General of Electricity Distribution Company

[EDCO]

Dear Sir

We, the undersigned, offer to provide the implementing services for [Insert title of assignment] in accordance with your Tender dated [Insert Date] and our Technical Proposal. Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures<sup>1</sup>]. This amount is exclusive [or inclusive] of the local taxes including withholding tax on interest, which shall be identified during negotiations and shall be added to the above amount.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to the expiration of the validity period of the proposal.

Commissions and gratuities paid or to be paid by us to agents relating to this Proposal and Contract execution, if we are awarded the contract, are listed below<sup>2</sup>:

NAME AND ADDRESS OF AGENTS	AMOUNT AND CURRENCY	PURPOSE OF COMMISSION OR GRATUITY

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Firm:

Address:

1 Amounts must coincide with the ones indicated under Total Cost of Financial proposal in Form FIN-2.

2 If applicable, replace this paragraph with: "No commissions or gratuities have been or are to be paid by us to agents relating to this Proposal and Contract execution."

### 3.3.2. FORM FIN-2: SUMMARY OF COSTS

Item	Costs	
	[Indicate Foreign Currency # 1] <sup>1</sup>	[Indicate Local Currency]
Total Costs of Wave 1		
Total Costs of Wave 2		
Total Costs of SAP Conversion (ECC to S4/HANA)		
Total Costs of Billing Integration		
Total Costs of Financial Proposal <sup>2</sup>		

- 1 Indicate between brackets the name of the foreign currency. Maximum of three currencies; use as many columns as needed, and delete the others.
- 2 Indicate the total costs, inclusive of local taxes, to be paid by the client in each currency. Such total costs must coincide with the sum of the relevant Subtotals indicated in all Forms FIN-3 provided with the proposal.

### 3.3.3. FORM FIN-3: BREAKDOWN OF COSTS BY ACTIVITY<sup>1</sup>

Phase 1: <sup>2</sup>		Description: <sup>3</sup>	
Cost component		Costs	
		[Indicate Foreign Currency # 1] <sup>4</sup>	[Indicate Local Currency]
Activity 1	Remuneration <sup>5</sup>		
	Reimbursable Expenses <sup>5</sup>		
	<b>Subtotals</b>		
Activity 2	Remuneration <sup>5</sup>		
	Reimbursable Expenses <sup>5</sup>		
	<b>Subtotals</b>		
	Remuneration <sup>5</sup>		
	Reimbursable Expenses <sup>5</sup>		
	<b>Subtotals</b>		
Activity n	Remuneration <sup>5</sup>		
	Reimbursable Expenses <sup>5</sup>		
	<b>Subtotals</b>		
<b>Subtotal Phase 1</b>			

- 1 Form FIN-3 shall be filled out at least for the whole assignment. In case some of the activities require different modes of billing and payment (e.g.: the assignment is phased, and each phase has a different payment schedule), the Bidder shall fill a separate Form FIN-3 for each group of activities. For each currency, the sum of the relevant Subtotals of all Forms FIN-3 provided must coincide with the Total Costs of the Financial Proposal indicated in Form FIN-2.
- 2 Names of activities (phase) should be the same as, or correspond to the ones indicated in the second column of Form TECH-8.
- 3 Short description of the activities whose cost breakdown is provided in this Form.
- 4 Indicate between brackets the name of the foreign currency. Use the same columns and currencies of Form FIN-2.
- 5 For each currency, Remuneration and Reimbursable Expenses must respectively coincide with relevant Total Costs indicated in Forms FIN-4, and FIN-5.



Phase 2: <sup>2</sup> _____		Description: <sup>3</sup> _____	
Cost component		<b>Costs</b>	
		[Indicate Foreign Currency # 1] <sup>4</sup>	[Indicate Local Currency]
Activity 1	Remuneration <sup>5</sup>		
	Reimbursable Expenses <sup>5</sup>		
	<b>Subtotals</b>		
Activity 2	Remuneration <sup>5</sup>		
	Reimbursable Expenses <sup>5</sup>		
	<b>Subtotals</b>		
...	Remuneration <sup>5</sup>		
	Reimbursable Expenses <sup>5</sup>		
	<b>Subtotals</b>		
Activity n	Remuneration <sup>5</sup>		
	Reimbursable Expenses <sup>5</sup>		
	<b>Subtotals</b>		
<b>Subtotal Phase 2</b>			

- 1 Form FIN-3 shall be filled out at least for the whole assignment. In case some of the activities require different modes of billing and payment (e.g.: the assignment is phased, and each phase has a different payment schedule), the Bidder shall fill a separate Form FIN-3 for each group of activities. For each currency, the sum of the relevant Subtotals of all Forms FIN-3 provided must coincide with the Total Costs of the Financial Proposal indicated in Form FIN-2.
- 2 Names of activities (phase) should be the same as, or correspond to the ones indicated in the second column of Form TECH-8.
- 3 Short description of the activities whose cost breakdown is provided in this Form.
- 4 Indicate between brackets the name of the foreign currency. Use the same columns and currencies of Form FIN-2.
- 5 For each currency, Remuneration and Reimbursable Expenses must respectively coincide with relevant Total Costs indicated in Forms FIN-4, and FIN-5.

### 3.3.4. FORM FIN-4: BREAKDOWN OF REMUNERATION<sup>1</sup> (LUMP-SUM)

Name <sup>2</sup>	Position <sup>3</sup>	Staff-month Rate <sup>4</sup>
FOREIGN & LOCAL STAFF		
		[Home]
		[Field]

- 1 Form FIN-4 shall be filled in for the same Professional and Support Staff listed in Form TECH-7.
- 2 Professional Staff should be indicated individually; Support Staff should be indicated per category (e.g.: draftsmen, clerical staff).
- 3 Positions of the Professional Staff shall coincide with the ones indicated in Form TECH-5.
- 4 Indicate separately staff-month rate and currency for home and fieldwork.

### 3.3.5. FORM FIN-5: BREAKDOWN OF REIMBURSABLE EXPENSES (LUMP-SUM)

N°	Description	Unit	Unit Cost (Currency)
	Per diem allowances	Day	
	International flights	Trip	
	Miscellaneous travel expenses	Trip	
	Communication costs between [Insert place] and [Insert place]		
	Drafting, reproduction of reports		
	Local transportation costs		
	Office rent, clerical assistance		

## ANNEX (1) NON-DISCLOSURE AGREEMENT

This Non-Disclosure Agreement (hereinafter the "Agreement") is made and entered into on this, day \_\_\_\_\_ of \_\_\_\_\_ 2024, (hereinafter the "Effective Date")

### By and between

Electricity Distribution Company a public shareholding company registered under the laws of Jordan under the number 22 of 1997 located in Amman – Jordan, Tel: + 962 6 5331330 Fax: +962 6 5341213 represented for the purpose of this Agreement by Director General in her capacity as General Manager (hereinafter referred to as "Disclosing Party", on the one part);

### And

....., registered under the laws of ..... under the number and operating under its name ....., located in....., Tel: ..... Fax: ..... represented for the purpose of this agreement by ..... in his capacity as a ..... (hereinafter referred to as "Receiving Party", of the other part);

**(Disclosing Party and Receiving Party are hereinafter collectively referred to as "Parties" and each may be referred to as "Party").**

**WHEREAS** the Disclosing Party shall disclose its Confidential Information to the Receiving Party and the Receiving Party shall receive, have access and become exposed to the Disclosing Party's Confidential Information (as defined below) through numerous means, forms and media.

**WHEREAS** the Parties wish to execute this agreement in order to ensure that any and all of the Disclosing Party's Confidential Information, which the Receiving Party shall receive, review, read, hear or become exposed to through any means or medium is kept confidential, protected

against unauthorized use or disclosure by the Receiving Party and shall at all times remain the Disclosing Party's sole and exclusive property.

**Now therefore,** in consideration of the foregoing recitals of the mutual covenants contained herein, the Parties hereby agree to the following:

1. For the purpose of this agreement the term "Confidential Information" shall mean any and all information, data or records of the Disclosing Party presented, given, sent or delivered to the Receiving Party whether in print, text, writing, orally, visually, via computer diskettes, compact disks, computer files of all kinds, or through any other audio-visual, tangible or intangible medium whatsoever and shall include but shall not be limited to, any and all information, data, records, statements, processes, formulae, techniques, financial, technical, operational, commercial, staff, management, sales strategies desires, goals or expansions and other information, data and expertise of whatever kind of the Disclosing Party, including all lists of potential or existing clients or customers, organizational information, contracts or agreements, proprietary business or management methods, marketing data, fee schedules, know-how, designs, concepts, techniques, inventions and ideas, business plans, computer software and programs, database technologies, systems, structures and architectures, research projects or trade secrets of the Disclosing Party and shall include all computer files, documents, data and analyses prepared by the Disclosing Party or its agents, which contain or are based upon Confidential Information. The Confidential Information shall also include any information which can be obtained by examination testing or analysis of any hardware, any component part thereof, and software or material samples, provided or given access to the Receiving Party by the Disclosing Party.
2. The Receiving Party acknowledges that any and all Confidential Information which has or will come into its possession or knowledge through any manner and medium whatsoever during the course of this agreement is confidential and of valuable proprietary nature and is the sole and exclusive property of the Disclosing Party.
3. The Receiving Party, on behalf of itself, hereby expressly, unconditionally and irrevocably agrees that it shall:
  - 3.1. Hold the Confidential Information in strict confidence to itself and restrict access to Confidential Information by only its employees who need to know it and shall further ensure that any such employees are bound by the obligations of confidentiality as stated in this agreement and undertake to hold all Confidential Information of the Disclosing Party in strict confidence;

- 3.2. Treat Confidential Information with at least the same care and precaution that the Receiving Party affords to its most confidential, valuable, and secret information;
- 3.3. Not use, exploit, access or benefit from Confidential Information for any reason or purpose whatsoever;
- 3.4. Not use such Confidential Information in any way detrimental to the Disclosing Party;
- 3.5. Not to copy, keep, preserve, store or retain in any medium whatsoever any Confidential Information of the Disclosing Party for any reason whatsoever. To that effect, the Receiving Party hereby expressly undertakes that it shall, insofar as reasonably practicable, immediately upon the request of the Disclosing Party, destroy any and all of the Confidential Information, which the Receiving Party has received from the Disclosing Party.
- 3.6. restrict release of Confidential Information to only a concerned Receiving Party Representative requiring such information and only after advance written notification to the Disclosing Party stating the name, address, telephone number and relationship to the Receiving Party of such Receiving Party Representative, and notifying such Receiving Party Representative to whom any disclosure of the Confidential Information is made that the disclosure is made in confidence, that the Confidential Information must be kept in strict confidence by the Receiving Party Representative and that the Receiving Party Representative as well as the Receiving Party are subject to the terms of this agreement;
- 3.7. Not to release, circulate, publish, expose, distribute, reveal, issue or disclose such Confidential Information through any medium or means whatsoever to any other person, persons, entity or entities without the prior, express and explicit written consent of the Disclosing Party in which event Receiving Party shall require such person or entity to enter into a confidentiality agreement acceptable to the Disclosing Party;
- 3.8. Take all reasonable steps to protect the Confidential Information from unauthorized access, production, publication, distribution, circulation, exposure, copying or disclosure by any party, in any manner, any means and any medium whatsoever;

- 3.9. Comply with any and all instructions that the Disclosing Party may issue in relation to the manner through which the Receiving Party may utilize the Confidential Information;
- 3.10. Notify the Disclosing Party immediately upon discovery of any unauthorized use or disclosure of Confidential Information, or any other breach of this agreement by the Receiving Party or the Receiving Party Representative and will cooperate with Disclosing Party in every way whatsoever to help the Disclosing Party regain possession of the Confidential Information and prevent any further unauthorized use of such;
- 3.11. After any termination of this agreement or upon request of the Disclosing Party, the Receiving Party shall return to the Disclosing Party within five (5) working days all tangible and/or intangible copies of Confidential Information and hereby further expressly undertakes that insofar as reasonably practicable it shall remove any and all copies, backups, print outs, digital, tangible, intangible, or any other form or copy of, any Confidential Information that the Receiving Party or the Receiving Party Representative may have direct possession of; be solely responsible for ensuring that each Receiving Party Representative complies with each and every one of the terms and conditions of this Agreement and the Receiving Party hereby expressly, unconditionally, and irrevocably warrants and undertakes that it shall be fully, completely and utterly liable to the Disclosing Party for any breach of the provisions of this agreement caused by the Receiving Party Representative.
4. The Receiving Party unconditionally understands and accepts that monetary compensation may not be sufficient to compensate the loss that may accrue to the Disclosing Party as a result of the breach by the Receiving Party or Receiving Party Representative of the terms and conditions of this agreement, and to that effect, the Receiving Party unconditionally understands and accepts that the Disclosing Party shall be lawfully entitled to utilize any and all other legal rights and remedies which the Disclosing Party may have against the Receiving Party, which shall include, but shall not be limited to any and all necessary and available legal measures and remedies including without limitation injunctive or equitable relief, to prohibit further disclosure, use, decimation or distribution of the Confidential Information and to recover any and all direct losses, damages, expenses, amounts, costs, fees (including reasonable attorneys and arbitration fees) which may accrue and be rightfully due to the Disclosing Party as a result of a breach by the Receiving Party or Receiving Party Representative of any of the terms, conditions and/or provisions of this agreement.

5. The Receiving Party hereby expressly and unconditionally understands and accepts that nothing in this agreement is intended to grant the Receiving Party any form of right, title or interest in or to any of the Confidential Information whatsoever or to any invention, trade secret or intellectual property based thereon. By disclosing, presenting or providing Confidential Information to the Receiving Party, the Receiving Party fully and unconditionally understands and accepts that the Disclosing Party does not grant any express or implied right interest or title to the Receiving Party or the Receiving Party Representative to any Confidential Information.
6. The Receiving Party hereby expressly agrees to indemnify and hold Disclosing Party harmless from any damages, loss, cost or liability (including reasonably incurred legal fees and the cost of enforcing this indemnity) which are directly arising out of or resulting from any unauthorized use or disclosure by the Receiving Party or the Receiving Party Representative of the Confidential Information or any form of breach of this Agreement provided Disclosing Party takes all reasonable efforts to mitigate any such damages, costs, losses or liability.
7. The obligations of the Receiving Party set out in this agreement shall not apply in respect of Confidential Information which the Receiving Party is legally obliged to disclose to third parties, or which a regulatory or judicial body is entitled to demand. Furthermore, such obligations shall not apply in respect of Confidential Information which comes into the public domain otherwise than through the Receiving Party.
8. This agreement, and each and every one of the terms, conditions and provisions of this agreement shall subsist and shall remain in full force and effect for [\*\*\*] years from the Effective Date hereof.
9. The Receiving Party will immediately on the request of the Disclosing Party return to the Disclosing Party all documents, forms, diskettes, compact discs, computer files or other tangible or intangible item containing Confidential Information together with all relevant samples and models which it has in its possession pursuant to this agreement.
10. The rights and obligations of the Parties pursuant to this agreement shall not be assigned without the prior written consent of the Parties hereto. A change in control or ownership of a Party shall not be considered an assignment.



11. The failure of the Disclosing Party at any time to enforce any of the terms, provisions or conditions of this agreement or to exercise any right hereunder shall not constitute a waiver of the same or affect that Party's rights thereafter to enforce the same.
12. The construction, validity and performance of this agreement and any contract incorporating the same shall be governed in all respects by the laws in force in the Hashemite Kingdom of Jordan.
13. All disputes arising in connection with this agreement, which cannot be settled amicably, shall be finally settled in accordance with the Jordanian Arbitration Law in force. The venue of the Arbitration shall be Amman, Jordan; the language of arbitration shall be Arabic; the Arbitration panel may, in its sole discretion or upon the request of either of the Parties to the Arbitration proceedings, order either or both of the Parties to abide by any injunctive or equitable relief as the Arbitration panel deems proper, or order the provision of security by either of the Parties to the Arbitration proceedings. The decision, in writing, by the arbitrators shall be final, binding and enforceable upon all the Parties to the dispute.

**IN WITNESS HEREOF** the Parties hereto have caused this agreement to be signed by their duly authorized representative.

**Signed for and on behalf of**

**Electricity Distribution Company (EDCO)**

**ENG. REEM HAMDAN**

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Signed for and on behalf of**

\_\_\_\_\_

\_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

## **ANNEX (2) STANDARD FORMS**

**DRAFT**

**Form of Contract  
for Implementing  
Services**

**BETWEEN**

**Electricity Distribution Company  
(EDCO)**

**And**

**{Name of the Bidder}**

**Day/ Month /Year**

## I. FORM OF CONTRACT

### LUMP-SUM REMUNERATION

This CONTRACT (hereinafter called the "Contract") is made the *[day]* day of the month of *[month]*, *[year]*, between, on the one hand the **Electricity Distribution Company (EDCO)** (hereinafter called the "Client") having its principal offices located in Amman, Jordan and on the other hand, *[name of Bidder]* (hereinafter called the "Bidder").

*[Note: If the Bidder consist of more than one entity, the above should be partially amended to read as follows: "... (hereinafter called the "Client") and, on the other hand, a joint venture consisting of the following entities, each of which will be jointly and severally liable to the client for all the Bidder's obligations under this contract, namely, *[name of Bidder]* and *[name of Bidder]* (hereinafter called the "Bidder").]*

#### WHEREAS

- (a) the client has requested the Bidder to provide certain implementing services as defined in the General Conditions of Contract attached to this contract (hereinafter called the "Services");
- (b) the Bidder, having represented to the client that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this contract;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this contract:
  - (a) The General Conditions of Contract;
  - (b) The Special Conditions of Contract;
  - (c) The following Appendices: *[Note: If any of these Appendices are not used, the words "Not Used" should be inserted below next to the title of the Appendix and on the sheet attached hereto carrying the title of that Appendix.]*

Appendix A: Description of the Services

Appendix B: Reporting Requirements

Appendix C: Key Personnel and Sub Bidder

Appendix D: Breakdown of Contract Price in Foreign Currency

Appendix E: Breakdown of Contract Price in Local Currency

Appendix F: Services and Facilities Provided by the Client

2. The mutual rights and obligations of the client and the Bidder shall be as set forth in the contract, in particular:

- (a) The Bidder shall carry out the Services in accordance with the provisions of the contract; and
- (b) The client shall make payments to the Bidder in accordance with the provisions of the contract.

IN WITNESS WHEREOF, the Parties hereto have caused this contract to be signed in their respective names as of the day and year first above written.

**[Note:** *If the Bidder consist of more than one entity, all these entities should appear as signatories, e.g., in the following manner:]*

For and on behalf of EDCO

*[Authorized Representative]*

For and on behalf of each of the  
Members of the Bidder

*[name of member]*

*[Authorized Representative]*

*[name of member]*

*[Authorized Representative]*

*[name of member]*

*[Authorized Representative]*

## II. GENERAL CONDITIONS OF CONTRACT

### 1. GENERAL PROVISIONS

#### 1.1 DEFINITIONS

Unless the context otherwise requires, the following terms whenever used in this contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in the Government of Jordan
- (b) "Contract" means the contract signed by the Parties, to which these General Conditions of Contract (GC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (c) "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (d) "Foreign Currency" means any currency other than the currency of the Government;
- (e) "GC" means these General Conditions of Contract;
- (f) "Government" means the Government of the Hashemite Kingdom of Jordan;
- (g) "Local Currency" means the currency of the Government;

- (h) "Member," in case the Bidder consist of a jointventure of more than one entity, means any of these entities; "Members" means all these entities, and "Member in Charge" means the entity specified in the SC to act on their behalf in exercising all the Bidder' rights and obligations towards the client under this contract;
- (i) "Party" means the Client or the Bidder, as the case may be, and "Parties" means both of them;
- (j) "Personnel" means persons hired by the Bidder or by any Sub Bidder as employees and assigned to the performance of the Services or any part thereof;
- (k) "SC" means the Special Conditions of Contract by which the GC may be amended or supplemented;
- (l) "Services" means the work to be performed by the Bidder pursuant to this contract, as described in Appendix A; and
- (m) "Sub Bidder" means any entity to which the Bidder subcontract any part of the Services in accordance with the provisions of Clauses 3.5 and 4.

## **1.2 LAW GOVERNING THE CONTRACT**

This contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Laws of Jordan.

## **1.3 LANGUAGE**

This contract has been executed in the language specified in the SC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this contract.

## **1.4 NOTICES**

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, telegram, or fax to such Party at the address specified in the SC.

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### **1.5 LOCATION**

The Services shall be performed at such locations as are specified in Appendix A and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the client may approve.

---

### **1.6 AUTHORIZED REPRESENTATIVES**

Any action required or permitted to be taken, and any document required or permitted to be executed, under this contract by the Client or the Bidder may be taken or executed by the officials specified in the SC.

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### **1.7 TAXES AND DUTIES**

Unless otherwise specified in the SC, the Bidder, Sub Bidder, and their Personnel shall pay such taxes according to the applicable Laws of Jordan.

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## **2. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT**

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### **2.1. EFFECTIVENESS OF CONTRACT**

This contract shall come into effect on the date the contract is signed by either parties or such other later date as may be stated in the SC.

---

### **2.2. COMMENCEMENT OF SERVICES**

The Bidder shall begin carrying out the Services thirty (30) days after the date the contract becomes effective, or at such other date as may be specified in the SC.

---

### **2.3. EXPIRATION OF CONTRACT**

Unless terminated earlier pursuant to Clause 2.6, this contract shall terminate at the end of such time period after the Effective Date as specified in the SC.

---

### **2.4. MODIFICATION**

Modification of the terms and conditions of this contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties and shall not be effective until the consent of the Bank or of the Association, as the case may be, has been obtained.

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## **2.5 FORCE MAJEURE**

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### **2.5.1 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 this contract impossible or so impractical as to be considered impossible under the circumstances.

---

### **2.5.2 NO BREACH OF CONTRACT**

The failure of a Party to fulfil any of its obligations under this contract shall not be considered to be a breach of, or default under, this contract insofar 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.

---

### **2.5.3 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.

---

### **2.5.4 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.

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## 2.6. TERMINATION

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### 2.6.1. BY THE CLIENT

The client may terminate this contract, by not less than thirty (30) days' written notice of termination to the Bidder, to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause 2.6.1 and sixty (60) days in the case of the event referred to in (e):

- (a) if the Bidder do not remedy a failure in the performance of their obligations under this contract, within thirty (30) days after being notified or within any further period as the client may have subsequently approved in writing;
- (b) if the Bidder become insolvent or bankrupt;
- (c) if, as the result of Force Majeure, the Bidder are unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- (d) If the Bidder, in the judgment of the client has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

For the purpose of this clause:

"Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution.

"Fraudulent practice" means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidder (prior to or after submission of proposals) designed to establish prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

- (e) if the client, in its sole discretion, decides to terminate this contract.
-

#### **2.6.2. BY THE BIDDER**

The Bidder may terminate this contract, by not less than thirty (30) days' written notice to the client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Clause 2.6.2:

- (a) if the client fails to pay any monies due to the Bidder pursuant to this contract and not subject to dispute pursuant to this clause within forty-five (45) days after receiving written notice from the Bidder that such payment is overdue; or
- (b) if, as the result of Force Majeure, the Bidder are unable to perform a material portion of the Services for a period of not less than sixty (60) days.

#### **2.6.3. NO BREACH OF CONTRACT**

The failure of a Party to fulfil any of its obligations under this contract shall not be considered to be a breach of, or default under, this contract insofar 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.

#### **2.6.4. 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.

#### **2.6.5. PAYMENT UPON TERMINATION**

Upon termination of this contract pursuant to Clauses 2.6.1 or 2.6.2, the client shall make the following payments to the Bidder:

- (c) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;
- (d) except in the case of termination pursuant to paragraphs (a) and (b) of Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of this contract, including the cost of the return travel of the Personnel and their eligible dependents.

### 3. OBLIGATIONS OF THE BIDDER

#### 3.1. GENERAL

The Bidder shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Bidder shall always act, in respect of any matter relating to this contract or to the Services, as faithful advisers to the client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub Bidder or third parties.

#### 3.2. CONFLICT OF INTERESTS

##### 3.2.1. BIDDER NOT TO BENEFIT FROM COMMISSIONS, DISCOUNTS, ETC.

The remuneration of the Bidder pursuant to Clause 6 shall constitute the Bidder's sole remuneration in connection with this Contract or the Services, and the Bidder shall not except 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 Sub Bidder, and agents of either of them similarly shall not receive any such additional remuneration.

##### 3.2.2. 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 their affiliates, as well as any Sub Bidder and any of its affiliates, shall be disqualified from providing goods, works, or services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services contract.

##### 3.2.3. PROHIBITION OF CONFLICTING ACTIVITIES

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

- (a) 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; or
- (b) after the termination of this contract, such other activities as may be specified in the SC.

#### **3.2.4. CONFIDENTIALITY**

The Bidder, their Sub Bidder, and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this contract, disclose any proprietary or confidential information relating to the project, the Services, this Contract, or the client's business or operations without the prior written consent of the client.

#### **3.2.5. INSURANCE TO BE TAKEN OUT BY THE BIDDER**

The Bidder shall be required to take the following insurance coverage's in accordance with the Jordanian Law:-

Automobile Third Party Liability.

Third Party Liability (damage to third person, property, etc).

#### **3.2.6. BIDDER' ACTIONS REQUIRING CLIENT'S PRIOR APPROVAL**

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

- (a) entering into a subcontract for the performance of any part of the Services,
- (b) appointing such members of the Personnel not listed by name in Appendix C ("Key Personnel and Sub Bidder"), and
- (c) any other action that may be specified in the SC.

#### **3.2.7. REPORTING OBLIGATIONS**

The Bidder shall submit to the client the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

#### **3.2.8. DOCUMENTS PREPARED BY THE BIDDER TO BE THE PROPERTY OF THE CLIENT**

All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Bidder in accordance with Clause 3.6 shall become and remain the property of the client, and the Bidder shall, not later than upon termination or expiration of this contract, deliver all such documents and software to the client, together with a detailed inventory thereof. The Bidder may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SC.

#### **3.2.9. PERFORMANCE GUARANTEE**

The successful bidder shall provide **the client** a performance Guarantee in a percentage of 10% of the total contract price within one month from the date of signing the contract. The performance Guarantee shall be issued from a local bank in Jordan acceptable to the **client**, and shall be valid two years from sign the agreement and may be extended till final taking over the project and as shown in the attached Form in Annex 1.

### 3.3. BIDDER' PERSONNEL

**3.3.1. DESCRIPTION OF PERSONNEL** The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Bidder' Key Personnel are described in Appendix C. The Key Personnel and Sub Bidder listed by title as well as by name in Appendix C are hereby approved by the client.

#### 3.3.2. REMOVAL AND/OR REPLACEMENT OF PERSONNEL

- (a) Except as the client 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.
- (b) If the client 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 client's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the client.

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

#### 3.3.2. REMOVAL AND/OR REPLACEMENT OF PERSONNEL

- (c) Except as the client 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.
- (d) If the client 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 client's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the client.
- (e) The Bidder shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

### 3.4. OBLIGATIONS OF THE CLIENT

<b>3.4.1. ASSISTANCE AND EXEMPTIONS</b>	The client shall use its best efforts to ensure that the Government shall provide the Bidder such assistance and exemptions as specified in the SC.
<b>3.4.2. CHANGE IN THE APPLICABLE LAW</b>	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 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 to in Clauses 6.2 (a) or (b), as the case may be.
<b>3.4.3. SERVICES AND FACILITIES</b>	The client shall make available to the Bidder the Services and Facilities listed under Appendix F.

### 3.5. PAYMENTS TO THE BIDDER

<b>3.5.1. LUMP- SUM REMUNERATION</b>	The Bidder's total remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all staff costs, Sub Bidder' costs, printing, communications, travel, accommodation, and the like, and all other costs incurred by the Bidder in carrying out the Services described in Appendix A. Except as provided in Clause 6.2, the Contract Price may only be increased above the amounts stated in Clause 6.2 if the Parties have agreed to additional payments in accordance with Clause 2.4.
<b>3.5.2. CONTRACT PRICE</b>	<p>(a) The price payable in foreign currency is set forth in the SC.</p> <p>(b) The price payable in local currency is set forth in the SC.</p>
<b>3.5.3. PAYMENT FOR ADDITIONAL SERVICES</b>	For the purpose of determining the remuneration due for additional services as may be agreed under Clause 2.4, a breakdown of the lump-sum price is provided in Appendices C and E.
<b>3.5.4. TERMS AND CONDITIONS OF PAYMENT</b>	Payments will be made to the account of the Bidder and according to the payment schedule stated in the SC. Unless otherwise stated in the SC, the first 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 SC. Any other payment shall be made after the conditions listed in the SC for such payment have been met, and the Bidder have submitted an invoice to the client specifying the amount due.

### 3.6. SETTLEMENT OF DISPUTES

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#### 3.6.1. AMICABLE SETTLEMENT

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this contract or its interpretation.

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#### 3.6.2. DISPUTE SETTLEMENT

Any dispute between the Parties as to matters arising pursuant to this contract that cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SC.

---



### III. SPECIAL CONDITIONS OF CONTRACT

Number	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1	The words "in the Government's country" are amended to read "Jordan "
1.2	The language is <i>English, Language</i>

### 1.3

The addresses are:

Client:

Electricity Distribution Company a public shareholding company registered under the laws of Jordan under the number 22 of 1997 located in Amman – Jordan, Tel: +962 6 5331330 Fax: + 962 2 5341213 represented for the purpose of this Agreement by Director General in her capacity as General Manager

Bidder: \_\_\_\_\_

Attention: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

### 1.4

The Authorized Representatives are:

For the Client:

Signed for and on behalf of

**Electricity Distribution Company**

Eng. REEM HAMDAN

**For the Bidder:**

\_\_\_\_\_

- 1.5** The Bidder and their Personnel (as well as the Sub Bidder and their Personnel) shall be exempt from any taxes, duties, fees, levies, and other impositions levied, under the Applicable Laws of Jordan.
- 1.6** The date on which this contract shall come into effect **is on the date of signing the contract**
- 1.7** The date for the commencement of Services is **after two working weeks** days of signing the contract
- 1.8** The amount in foreign currency or currencies  
The amount in local currencies is **JD**
- 1.9** The accounts are:
- for foreign currency: *[insert account]*
- for local currency: *[insert account]*
- Payments shall be made according to the milestones mentioned in the project schedule
- 1.10** Any dispute, controversy, or claim arising out of or relating to this contract, or the breach, termination, or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force.

## **IV. APPENDICES**

### **Appendix A. DESCRIPTION OF THE SERVICES**

**As described in TENDER the implementer should do the tasks mentioned in section 1.10**

## **Appendix B.      REPORTING REQUIREMENTS**

(ERP and MDM attached)

## **Appendix C. KEY PERSONNEL AND SUB BIDDER**

*List under: C-1 Titles [and names, if already available], detailed job descriptions and minimum qualifications of foreign Personnel to be assigned to work in the Government's country, and staff- months for each.*

*C-2 Same as C-1 for Key foreign Personnel to be assigned to work outside the Government's country.*

*C-3 List of approved Sub Bidder (if already available); same information with respect to their Personnel as in C-1 or C-2.*

*C-4 Same information as C-1 for Key local Personnel.*

#### **Appendix D.        BREAKDOWN OF CONTRACT PRICE IN FOREIGN CURRENCY**

*List here the elements of cost used to arrive at the breakdown of the lump-sum price—foreign currency portion:*

1.        *Monthly rates for Personnel (Key Personnel and other Personnel).*
2.        *Reimbursable expenditures.*

*This appendix will exclusively be used for determining remuneration for additional services.*

## **Appendix E.            BREAKDOWN OF CONTRACT PRICE IN LOCAL CURRENCY**

*List here the elements of cost used to arrive at the breakdown of the lump-sum price—local currency portion:*

1.     *Monthly rates for Personnel (Key Personnel and other Personnel).*
2.     *Reimbursable expenditures.*

*This appendix will exclusively be used for determining remuneration for additional services.*



## **Appendix F. SERVICES AND FACILITIES PROVIDED BY THE CLIENT**

1. EDCO will provide the Bidder with adequate project room/ office spaces and facilities. EDCO will also undertake to provide the Bidder with fax and email facilities that are strictly required to conduct his work. Hotel and other living accommodation, transport, and private expenses are to be at the Bidder's cost.

## V. MODEL FORM OF PERFORMANCE GUARANTEE

Date Effective Date

To .....

We have the pleasure to inform you that our bank

.....

has guaranteed by a financial guarantee the Bidder

.....

for the sum of .....

as a performance guarantee for Agreement Ref ..... for the

.....

being a performance guarantee binding the Bidder to offer Services in accordance with the conditions of the agreement.

**We undertake to deposit with you the said amount mentioned above or the remaining amount due upon your first demand, without warning or reservation or any other condition, and notwithstanding any objection on the part of the Bidder.**

This guarantee shall remain valid for the period from the date of issue until the completion of the required Services by the Bidder (this period is anticipated to be 18 months, i.e. the completion will be on or before (day /month/year)). The validity of the said guarantee shall be extended automatically until the final completion of the Services and shall not be canceled except with your written approval.

Issued in .....

Signature of Guarantor Bank

Date .....

Signature of Witness .....

Name of Witness .....

Date .....

**Electricity Distribution Company (EDCO)**

**Form of Bid Bond**

**Tender No. (23/2024)**

**Dear Sir,**

We are pleased to inform you that we guarantee M/S.....for the amount of.....in order to allow them to submit an offer for the due performance of the undertaking and obligation as specified in their Tender for Contract No. ....This Guarantee shall remain valid for a period of one hundred twenty days from the time fixed for opening the Tenders by Electricity Distribution Company (EDCO).

This Guarantee shall be free from any interest and will be extended or paid in cash upon your first request in any or required, without the need for natural warning or judicial proceedings and without any rights to delay, oppose, or stop payment on our part, or on the part of the Tender or any of his representatives whom over. This Guarantee shall be deemed valid until the submittal of a duly executed Performance Bond.

**Signed.....Bank (Surety)**

17<sup>th</sup>, March 2024

**Detailed Requirements List  
Business Analysis Project / Enterprise  
Resource Planning (ERP) and Meter Data  
Management (MDM) Systems for Electricity  
Distribution Company (EDCO)**



**شركة توزيع الكهرباء**  
Electricity Distribution Co.

Number Of Pages	80	Business Analysis Project for Enterprise Resource Planning (ERP) and Meter Data Management (MDM) Systems		Date	17/03/2023
		Electricity Distribution Company EDCO			
		Detailed Requirements List		Version	1.0

17<sup>th</sup>, March 2024

## Detailed Requirements List

### Business Analysis Project / Enterprise Resource Planning (ERP) and Meter Data Management (MDM) Systems for EDCO



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## Introduction

This document outlines the requirements for the implementation of an Enterprise Resource Planning (ERP) system at Electricity Distribution Company (EDCO). The purpose of this document is to provide a clear understanding of EDCO's operational processes and the functionalities, enhancements, and system integrations necessary to achieve their objectives effectively.

The objective of this document is to define the specific requirements for each department within EDCO. By documenting these requirements, we aim to ensure a seamless integration of the ERP system and enable EDCO to optimize their operations.

The purpose of this document is to serve as a comprehensive guide for the vendor responsible for implementing the ERP system. It establishes the project's scope and provides detailed instructions on how to proceed with each requirement. The document also emphasizes the importance of understanding and categorizing the requirements based on their feasibility and impact.

Instructions for the Vendor:

1. **Read and understand each requirement:** It is essential to thoroughly read and understand each requirement outlined in this document. Take the time to familiarize yourself with EDCO's specific needs and operational processes.
2. **Must Have / Nice to Have:** Notice that each requirement is classified as either "Must Have" or "Nice to Have." Read this classification carefully and take it into consideration when preparing your response. This classification is integral to the evaluation process.
3. **Comply/ Not Comply:** Ensure to indicate compliance with each requirement in the designated column by responding with either "Yes" or "No." Any response differing from these options will be automatically considered as a "No." This is critical for the evaluation of your submission.
4. **Fulfillment type:** Provide the necessary fulfillment type for each requirement by filling in the column labeled S, W, and N. Use "S" to indicate if the requirement can be fulfilled using standard methods, "W" if a workaround is necessary, and "N" if it cannot be met. If you select "W," ensure that you include a clear explanation. It is important to accurately indicate if each requirement can be fulfilled or not. Please note that any response other than these options will be considered as "No."
5. **Clarification Requests:** If certain requirements require further clarification, please summarize the areas that need clarification and communicate them back to EDCO. It is crucial to ensure a mutual understanding of the requirements to achieve a successful implementation.
6. **Remarks:** It is essential to note that remarks provided will not be considered in the evaluation process and will be disregarded.

Note: All requirements mentioned in this document are considered part of the project's scope and should be treated as essential unless explicitly specified otherwise. The stakeholders at EDCO have classified each requirement as either "Must to have" or "Nice to have" based on their significance.

We appreciate your attention to detail and your commitment to implementing the ERP system at EDCO. By aligning your efforts with the documented requirements, we can ensure a successful integration that meets EDCO's operational needs.

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## Requirements list:

### 1. ERP Requirements:

No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
1	RQ_PRC_001	The system should be able to determine the credit limit for each supplier	Must Have		
2	RQ_PRC_002	The system should be able to track the PO status until the last payment is made	Must Have		
3	RQ_PRC_003	The payment terms should be applied at the Purchase Order (PO) level, and any changes to the payment terms should require specific authorization	Must Have		
4	RQ_PRC_004	The system should have the ability to process invoices associated with a Purchase Order (PO) for items that are categorized as stockable, consumable, or services.	Must Have		
5	RQ_PRC_005	The system should efficiently manage supplier contracts and contractor invoices, including processing, tracking, and matching them with contracts, and the system should generate periodic reports on contractor invoices and their compliance with contracts.	Must Have		
6	RQ_PRC_006	The system must be able to monitor and update information on suppliers and contracts.	Must Have		
7	RQ_PRC_007	The system should be able to evaluate, classify, and display supplier ratings and statuses	Must Have		
8	RQ_PRC_008	The system should have the ability to generate and manage purchase orders for new assets.	Must Have		
9	RQ_PRC_009	The system should be capable of allowing the creation of a purchase order when a new material is requested.	Must Have		
10	RQ_PRC_010	The system should allow for a series of approvals to obtain approval for a purchase request and notify the Procurement and Purchasing department of the final approval to proceed with the necessary procedures.	Must Have		
11	RQ_PRC_011	The system should be capable of creating a purchase order with multiple currency prices.	Must Have		
12	RQ_PRC_012	The system should allow the creation of a purchase order based on an approved purchase requisition. Additionally, the purchase order should automatically include the purchase requisition number as a reference.	Must Have		
13	RQ_PRC_013	The system should suggest the last purchase price when creating a new PO	Must Have		



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14	RQ_PRC_014	The system should be able to track the status of the purchase order until the final payment is made, with the requirement of sending notifications in case of any delays.	Must Have		
15	RQ_PRC_015	The system should be able to determine the delivery address in PO	Must Have		
16	RQ_PRC_016	The system should be able to specify payment terms and penalty conditions in the purchase order.	Must Have		
17	RQ_PRC_017	The system should have the ability to block or unblock primary supplier records based on the periodic review conducted by the purchasing department.	Must Have		
18	RQ_PRC_018	The system should have the capability to generate purchase orders automatically through Material Requirements Planning (MRP).	Must Have		
19	RQ_PRC_019	"The system should have the ability to change/update requisitions created through MRP before purchase order processing.	Must Have		
20	RQ_PRC_020	The system should possess the capability to effectively generate and manage crucial data for suppliers, encompassing contact details, tax identifications, payment terms, business registration number, and any other relevant information. Furthermore, it is imperative that the entry of this information is mandatory.	Must Have		
21	RQ_PRC_021	"The system should have the functionality to include several items in a single Purchase Order, each with distinct delivery dates."	Must Have		
22	RQ_PRC_022	System should allow defining multiple incoterms and select the required incoterms during the purchase order	Must Have		
23	RQ_PRC_023	The system will allow the ability to create non-stockable purchase requisitions	Must Have		
24	RQ_PRC_024	The system should provide the capability to define tolerance for receiving quantities that are less or more than the quantity mentioned in the assignment letter or purchase order. This tolerance definition should be within certain authorization.	Must Have		
25	RQ_PRC_025	The system will allow the ability to enter free goods on purchase orders	Must Have		
26	RQ_PRC_026	The ability to create a one-time and non-recurring purchase order for the supplier.	Must Have		

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27	RQ_PRC_027	The system should provide the capability to carry out direct cash purchase transactions in emergency situations, based on an approved local purchase order and in accordance with the assigned permissions.	Must Have		
28	RQ_PRC_028	The system should have the capability to display the financial payment status of an order after the goods have been received from the vendor	Must Have		
29	RQ_PRC_029	The system should provide the capability to manually close any outstanding purchase order	Must Have		
30	RQ_PRC_030	The system should contain a feature that prevents the printing of a purchase order until it is fully approved	Must Have		
31	RQ_PRC_031	The system should provide the ability to modify purchase orders. However, in such cases, the system should request approval according to the approval matrix.	Must Have		
32	RQ_PRC_032	The system should be able to define the purchase lead time per material for planning purposes	Must Have		
33	RQ_PRC_033	The ability to calculate different types of taxes on purchases	Must Have		
34	RQ_PRC_034	The system should allow users to cancel purchase request before it gets approved	Must Have		
35	RQ_PRC_035	the system should support the ability to define the payment type and terms at the purchase order	Must Have		
36	RQ_PRC_036	The system should be able to create purchase order based on an old PO	Must Have		
37	RQ_PRC_037	The system should be capable of creating both complete and partial return orders.	Must Have		
38	RQ_PRC_038	the system should provide the ability for the requester to display the stock availability in the warehouse at the time of creating the purchase requisition	Must Have		
39	RQ_PRC_039	The system should provide the ability to analyze material consumption and predict future needs	Must Have		
40	RQ_PRC_040	The system should provide periodic reports on supplier performance and evaluation	Must Have		
41	RQ_PRC_041	The system should include multi-language and multi-currency functions to support dealing with international suppliers	Must Have		
42	RQ_PRC_042	The system should allow the ability to monitor and determine shipping and delivery dates for materials	Must Have		
43	RQ_PRC_043	The system should be able to update and track details of all transport and shipping operations	Must Have		

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44	RQ_PRC_044	The system should allow the ability to monitor and track the quality of supplied materials and issue reports about them	Must Have		
45	RQ_PRC_045	The system should include a function to create and track modification and cancellation requests for purchase orders	Must Have		
46	RQ_PRC_046	The system should allow the ability to store and share documents and files related to suppliers and contracts	Must Have		
47	RQ_PRC_047	The system must request the Bill of Materials (BOM) from the relevant department when creating a purchase order, aiming to synchronize the development of the technical specifications (BOM) with the purchasing procedures.	Must Have		
48	RQ_PRC_048	The system should provide a dedicated screen for specifications, including a filtering system that encompasses the technical specification code, material numbers, material users, bid numbers, purchase orders, tenders, agreements, names and contact details of designated suppliers, name of the requesting/user entity and phone number, examining committee, inspectors, and any recorded notes about the material after use.	Must Have		
49	RQ_PRC_049	The system should provide the capability to enter technical specifications and associated documents (technical analysis, inquiries, successful offers, inspections) as well as notes from the user entity and images of the material.	Must Have		
50	RQ_PRC_050	The system should automate the process of requesting technical specifications by Purchasing and Procurement, ensuring its parallel linkage with the purchase order transaction and incorporating the approval workflow of the specifications by the relevant departments before final approval and submission to the Bidding and Procurement Department.	Nice to have		
51	RQ_PRC_051	The system should provide a screen for querying technical specifications for all departments in the company.	Nice to have		
52	RQ_PRC_052	The system should be able to automate the process of handling manufacturing defects and link them to relevant information such as the tender number, supplier, material number, and specifications.	Must Have		
53	RQ_PRC_053	The system should be able to automate the process of reviewing and modifying technical specifications	Must Have		

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		and preparing a list of suppliers through the ERP system.			
54	RQ_PRC_054	The system should be able to verify the entry of all required data when defining the supplier.	Must Have		
55	RQ_PRC_055	The system should be able to prevent the repetition of the supplier's name in multiple entries.	Must Have		
56	RQ_PRC_056	The system should have the capability to attach the awarding letter to the PO and related documents for the selected supplier according to the tender procedures	Must Have		
57	RQ_PRC_057	The system must be able to provide more than one PO type. i.e., per district, category...etc.	Must Have		
58	RQ_GN_001	The system should be integrated with the Geographic Information Systems (GIS)	Must Have		
59	RQ_GN_002	The system should have the capability to generate custom reports based on specific requirements and to extract the necessary data without the need for programming requests (ability to create reports based on requirements).	Must Have		
60	RQ_GN_003	The system should have the capability to execute the required operations while considering their interdependence and adhering to the applicable instructions.	Must Have		
61	RQ_GN_004	The system should facilitate the archiving of essential attachments and integrate with the existing archiving solution (MFiles).	Must Have		
62	RQ_GN_005	The system should allow for sending notifications to complete certain tasks within their designated deadlines, ensuring that no item is forgotten by sending reminders before the necessary timeframe expires.	Must Have		
63	RQ_GN_006	There should be integration between the meter inspection device and the ERP system.	Nice to have		
64	RQ_GN_007	The system should have the capability to integrate with the GIS system, enabling readers to identify their locations.	Must Have		
65	RQ_GN_008	The system should provide the ability to activate a counter for each transaction, and when the counter approaches zero, the system should automatically send an alert/notification.	Nice to have		
66	RQ_GN_009	The system should be able to provide an automated alerts system that sends notifications to users about tasks that are due	Nice to have		

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67	RQ_GN_010	The system should be capable of uploading data from an Excel sheet	Must Have		
68	RQ_GN_011	The system should have the ability to integrate with external systems, such as transportation management systems and customer relationship management systems.	Must Have		
69	RQ_GN_012	The system must provide integration tools (XML, APIs, etc.) for bi-directional communication with external systems.	Must Have		
70	RQ_GN_013	The system must maintain log records of changes on object level, user level and system level.	Must Have		
71	RQ_GN_014	The system must provide the ability to enable/disable logs at any level.	Must Have		
72	RQ_GN_015	The system must provide the ability to enable/disable logs for specific object(s) for a specified period.	Must Have		
73	RQ_GN_016	The system must provide comprehensive system level technical reports including but not limited to performance reports, database performance reports, data growth reports.	Must Have		
74	RQ_GN_017	The system must provide a comprehensive authorization module that support features including but not limited to user grouping, user roles, object grouping, access permissions	Must Have		
75	RQ_GN_018	The system must support enforcing IT security polices including but not limited to password policy, user validity.	Must Have		
76	RQ_GN_019	The system must support integration with MS windows domain (SSO).	Must Have		
77	RQ_GN_020	The system must provide a complete development environment for developing programs, reports, integration APIs.	Must Have		
78	RQ_GN_021	The system must support transporting developed objects between three landscapes (Dev, QA and PRD).	Must Have		
79	RQ_GN_022	The system must provide versioning and track changes between versions of developed objects.	Must Have		
80	RQ_GN_023	The system must support custom report layouts created for specific user needs.	Must Have		
81	RQ_GN_024	The system should have the capability to manage and process customer refunds	Must Have		
82	RQ_CS_001	The system should provide AR Report and should consider there received customers payments	Must Have		

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83	RQ_CS_002	There should be an installment system for the customers receivable according to their due date with ability to sort by tampering or billing	Must Have		
84	RQ_CS_003	The ability to print customer account statements.	Must Have		
85	RQ_CS_004	The ability to provide a receipt to the subscriber containing the amount details, a list of invoices corresponding to the receipt, and the remaining amount representing the total outstanding balance for the subscriber, such as installment dues and the count of pending invoices.	Must Have		
86	RQ_CS_005	The system should provide a request for a report of cash balances as per the requested date.	Must Have		
87	RQ_CS_006	The system should provide the ability to calculate costs based on predefined prices.	Must Have		
88	RQ_CS_007	The system should provide the ability to differentiate between listed prices, which are defined by the energy regulatory authority, and unlisted prices, which are internally defined.	Nice to have		
89	RQ_CS_008	The system should consider various factors for calculating connection costs, such as subscriber contributions, subscription type, and subscriber type.	Nice to have		
90	RQ_CS_009	The system should allow the costing department to create a payment order on the Workflow for the subscriber to complete the payment process	Must Have		
91	RQ_CS_010	The system should display the remaining time for the cost department to complete the transaction based on the mandatory duration set by the Energy and Minerals Regulatory Authority performance standards	Nice to have		
92	RQ_CS_011	The system should allow viewing of completed transactions by the cost department, pending subscriber payment, through the verified cost screen:	Must Have		
93	RQ_CS_012	The system should automatically direct the transaction to the authorized department for implementation once the payment process is completed:	Must Have		
94	RQ_CS_013	The system should link materials to the project number based on the account type defined by the project accounting dept. this link should happen at the time of invoicing the new subscriber	Must Have		

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95	RQ_CS_014	The system should calculate transactions that involve the installation of a new transformer or upgrading the capacity of a transformer, taking into account the inclusion of metering transactions and excluding others, based on the type and classification of the transformer.	Must Have		
96	RQ_CS_015	The system should be able to process the subscribers applications into the system	Must Have		
97	RQ_CS_016	The system should be able to attach all required documents that is related to the customer application screen	Must Have		
98	RQ_CS_017	The system should have the capability to manage customer account information.	Must Have		
99	RQ_CS_018	The system should have the capability to send the customer application to the customers accounting section to calculate the cost of connecting electricity to the subscriber's house and also the customer contribution from the total amount in case the company will share part of the cost	Must Have		
100	RQ_CS_019	The system should be able to classify the types of customers based on the service offered to them	Must Have		
101	RQ_CS_020	The system should be integrated with the current call center system	Must Have		
102	RQ_CS_021	The system should have the capability to manage technical data for devices including installations, meter readings, and inspections	Nice to have		
103	RQ_CS_022	The system should be able to identify each device by a unique serial number	Must Have		
104	RQ_CS_023	The system should be able to manage the transfer of ownership from one subscriber to another through a single screen.	Must Have		
105	RQ_CS_024	The system should be able to handle the meter inspection request asked by the customer	Must Have		
106	RQ_CS_025	The system should be able to deal with cases of terminating the contract based on the customer's request	Must Have		
107	RQ_CS_026	The system should have the ability to handle customer inquiries and complaints.	Nice to have		
108	RQ_CS_027	The system must provide the capability to document and record information related to meter inspections when received from the supplier	Must Have		
109	RQ_CS_028	The system must enforce the restriction of issuing or providing two meters to a single subscription.	Must Have		



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110	RQ_CS_029	The system must handle customer-related transactions such as meter installations, modifying the subscription for a specific customer, and providing any other type of services.	Must Have		
111	RQ_CS_030	The system should store information related to disconnection and reconnection of subscribers' meters.	Must Have		
112	RQ_CS_031	The system should have the capability to maintain the data related to the customer and meter in the same screen	Must Have		
113	RQ_CS_032	The system should able to deal with the calls received from the customers and record all the information related to the call	Must Have		
114	RQ_CS_033	The system should be capable of managing and maintaining the Key Performance Indicators DPS suggested by the Energy and Mineral Regulatory Commission (EMRC), especially those related to the timeframes for resolving complaint cases.	Must Have		
115	RQ_CS_034	The system should have the capability to approve requests through a subscription clerk or an authorized person, and subsequently issue payment orders.	Must Have		
116	RQ_CS_035	the system should have the ability to receive the subscription application of the customer and maintain in the system	Must Have		
117	RQ_CS_036	The system should be able to handle the change requests on a current subscription based on the customer request	Must Have		
118	RQ_CS_037	The system should be able to deal with complaints tickets raised by the inspection section	Nice to have		
119	RQ_CS_038	The system should have the ability to track the disconnection and reconnection process, including reasons and types of actions taken.	Must Have		
120	RQ_CS_039	The system should provide a report that shows the time taken to execute each new customer subscription.	Must Have		
121	RQ_CS_040	The system should have the ability to manage and track all types of subscriptions.	Must Have		
122	RQ_CS_041	The system should have the ability to handle late payment penalties and disconnections	Must Have		
123	RQ_CS_042	The system should allow displaying subscriber information when reporting a technical failure and adding the information to the maintenance request.	Must Have		



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124	RQ_CS_043	The system should allow for the creation of separate bills for the subscriber for collection purposes, with a sequential order of authorizations and approvals.	Must Have		
125	RQ_CS_044	The system should be able to identify the affected subscribers by scheduled outages in a specific geographic area, notify them, and do so based on information from the GIS system.	Must Have		
126	RQ_CS_045	The system should be able to handle citizen complaints	Must Have		
127	RQ_CS_046	The system should provide integration between the complaint response screen, the workflow system, and the ERP screen to facilitate complaint response procedures, analyze entered data, display necessary results, and draft responses according to performance standards.	Must Have		
128	RQ_CS_047	The system should be able to establish a connection between the complaints screen and the ERP screen to facilitate the follow-up of responses to complaints. This can be achieved by adding a counter for each unanswered complaint.	Must Have		
129	RQ_CS_048	The system should be able to sort transactions by their respective types, such as optimization transactions, complaints, regulatory samples, and network modifications.	Must Have		
130	RQ_CS_049	The system should facilitate the completion of technical inspection outputs and simplify the procedures for installing and replacing meters. Additionally, it should accurately record meter information on an easily accessible screen, allowing retrieval at any time and from anywhere without the need to visit offices for form completion.	Must Have		
131	RQ_CS_050	The system must link complaints submitted by subscribers in the billing program, allowing for easy tracking within the system when monitoring subscriber transactions.	Must Have		
132	RQ_CS_051	The system should provide the capability to block on any subscriber associated with administrative or financial dues only after settlement, and this authority is linked to the department manager. Additionally, there is the possibility of blocking on any cleared subscription to prevent any financial transactions from being entered into it.	Must Have		

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133	RQ_CS_052	The system should provide the data entry with the ability to fill in subscription information once without the need to navigate between system screens, and automatically adapt to interconnected requirements.	Must Have		
134	RQ_CS_053	The system should provide flexible and concise screens that allow the user to navigate and interact with the system easily	Nice to have		
135	RQ_CS_054	The system should provide a single inquiry screen for all details related to the subscription, including financial and technical information.	Must Have		
136	RQ_CS_055	The system should provide clear and understandable reports for the user and subscriber, displaying the invoice value each month along with the issue date, the due amount, and the due date. For example, a subscriber account statement report.	Must Have		
137	RQ_CS_056	The system should provide a mechanism for replacing or making any changes to the meter in a concise manner, ensuring that the fixed information is preserved in case of replacement, and that it does not need to be re-entered.	Must Have		
138	RQ_CS_057	The system should provide a mechanism to link information for new subscribers, allowing all details to be entered on a specific screen and additional data for the subscriber to be completed within the same screen.	Must Have		
139	RQ_CS_058	The system should activate workflow automation in customer services, with the requirement of integrating this automation with the billing system.	Must Have		
140	RQ_CS_059	The system should address the issue of tampering with all its details and aspects.	Must Have		
141	RQ_CS_060	The system should establish criteria that prevent incorrect inputs, for example, installing a three-phase meter on a subscription identified as single-phase or installing a meter outside the region's validity range.	Must Have		
142	RQ_CS_061	The system must simplify and streamline the meter reading process and address any issues related to periods without issuing invoices.	Must Have		

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143	RQ_CS_062	The system should have a filtering screen to be concise and more accurate, retaining the same subscriber number when modifying the name. Additionally, it should include an option to filter based on the latest invoice (for cases where the transaction is entered after the invoice is issued and the readings and values match) without canceling the issued invoice.	Must Have		
144	RQ_CS_063	The system should have a messaging system through which a message is sent to the subscriber, explaining the action taken on the submitted transaction and indicating its costs.	Must Have		
145	RQ_CS_064	The system should accurately and effectively modify all used forms, such as receipts and payment vouchers, etc.	Must Have		
146	RQ_CS_065	The system should handle subscriptions that have legal issues raised against the subscribers, ensuring that any case is linked to the subscriber and displaying a comprehensive statement of the details for each case.	Must Have		
147	RQ_CS_066	The system should integrate the call center with the billing system, allowing inquiries about any subscriber who contacts the call center.	Must Have		
148	RQ_CS_067	The system should link complaints submitted by subscribers in the billing program, allowing the tracking of complaints on the system, so that complaints are visible when tracking subscriber transactions.	Must Have		
149	RQ_CS_068	The system should facilitate the input and modification of multiplication factors for CT meters in an easy and clear manner, noting that the multiplication factor applies to all registers and not just one.	Must Have		
150	RQ_CS_069	The system should automatically fill in the required parameters in the equipment associated with the nature and type of the subscription and the contracted phase directly. Additionally, it should handle financial claims (1 phase = filling in the required equipment for 1 phase).	Must Have		
151	RQ_CS_070	The system must automate the procedures for activating renewable energy subscriptions and improve them.	Must Have		
152	RQ_CS_071	The system should connect subscribers' meters to the statistical meters of the station, for the purpose of calculating energy loss.	Must Have		

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153	RQ_CS_072	The system should automate the procedures for deactivating, examining, clearing, and replacing meters.	Must Have		
154	RQ_CS_073	The system must adopt a procedure for users to revert actions taken during processes, with a sequential order according to permissions, allowing the cancellation of the latest executed operations.	Must Have		
155	RQ_CS_074	The system must enable electronic signature using smart tablets.	Must Have		
156	RQ_CS_075	The system must establish a mechanism to alert in case of an increase in station loads, displaying it on the program.	Must Have		
157	RQ_CS_076	The system should allow entering the coordinates of meters into the (GIS) system, to be useful for future maintenance activities.	Must Have		
158	RQ_CS_077	The system must enhance and implement controls on the readings of the renewable energy register, contributing to the accuracy and continuity of the data recording process.	Must Have		
159	RQ_CS_078	The system should improve the link between the price data at the meter level and the defined register, ensuring the provision of accurate and consistent information.	Must Have		
160	RQ_CS_079	The system must clarify the cancellation mechanism and detail the authorization hierarchy in the document cancellation process, emphasizing user-friendly and auditable procedures.	Must Have		
161	RQ_CS_080	The system should facilitate the connection between the meter description and the phase code, enhancing user understanding of information related to electrical systems.	Must Have		
162	RQ_CS_081	The system must enhance the ability to disassociate a contract account from a business partner without the need to create a new contract account, ensuring efficiency and immediacy without introducing new complications in operations.	Must Have		
163	RQ_CS_082	The system should improve the capability to open insurances for subscribers directly without the need for additional complex steps.	Must Have		
164	RQ_CS_083	The system must strengthen the statement of the mechanism for correcting erroneous invoices without the need to cancel subsequent invoices, contributing to improving user experience and effectively avoiding errors.	Must Have		

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165	RQ_ACC_001	The system should support multi-currency for all transactions	Must Have		
166	RQ_ACC_002	The system needs to support the definition and handling of cost centers and analytical accounts.	Must Have		
167	RQ_ACC_003	The system should allow building a multi-dimensional cost center structure	Must Have		
168	RQ_ACC_004	The system must be capable of supporting various inventory valuation methods, such as average cost, and it should also support the categorization of cost types like (standard, FIFO, moving average).	Must Have		
169	RQ_ACC_005	The system should support posting a real time transaction to GL	Must Have		
170	RQ_ACC_006	The system should be able to freeze the financial periods from data entry and this should be based on certain authorization	Must Have		
171	RQ_ACC_007	The system should provide consolidated reports for all branches (GL transactions, balances, Inventory, etc.)	Must Have		
172	RQ_ACC_008	The system should be able to copy journal voucher from another JV	Nice to have		
173	RQ_ACC_009	The system should be able to reverse journal voucher	Must Have		
174	RQ_ACC_010	The system should provide trial balance for cost centers	Must Have		
175	RQ_ACC_011	Ability to generate a cash flow statement to company	Must Have		
176	RQ_ACC_012	Ability to Link a GL accounts to each bank account	Must Have		
177	RQ_ACC_013	Ability to park a journal entry before approved and posting	Must Have		
178	RQ_ACC_014	Ability to report on un-approved parked journal entries	Must Have		
179	RQ_ACC_015	Ability to control access and authorizations for changing posted journal entries, this should be based on certain authorization	Must Have		
180	RQ_ACC_016	The system should support recurring entries types and also support the allocated expense prepayment entries.	Must Have		
181	RQ_ACC_017	The system should generate tax reports.	Must Have		
182	RQ_ACC_018	The system should allocate expenses to cost centers based on specified proportions or amounts.	Must Have		
183	RQ_ACC_019	The system should provide income statement by cost center.	Must Have		
184	RQ_ACC_020	The system should be able to attach documents to all transactions	Must Have		

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185	RQ_ACC_021	The system should support the unified account structure for electricity distribution companies	Must Have		
186	RQ_ACC_022	The system should capability to define the GL account with 10 to 20 digits	Nice to have		
187	RQ_ACC_023	The system should follow the approved account structure by the regulatory authority	Nice to have		
188	RQ_ACC_024	The system should support the creation of new chart of accounting after getting the approval from EMRC	Nice to have		
189	RQ_ACC_025	The system should prepare the Trial Balance and send it to the financial department	Must Have		
190	RQ_ACC_026	The system should be able to provide the payroll department with employees' balances, input deductions from employees' salaries, and settle their balances.	Must Have		
191	RQ_ACC_027	The system should handle the calculation and study of doubtful debts provision, including the manual classification and entry of provisions based on aging analysis.	Nice to have		
192	RQ_ACC_028	The system should create an invoice based on an existing purchase order	Must Have		
193	RQ_ACC_029	The system should display the remaining unpaid amount to each supplier invoice	Must Have		
194	RQ_ACC_030	The system should support all types of taxes, and any new modifications should be easily adjustable.	Must Have		
195	RQ_ACC_031	The system should provide the ability to add additional costs (such as customs clearance, shipping, loading, and unloading expenses) at the item level during the entry of purchase invoices, in order to reflect them in the overall cost of the product.	Must Have		
196	RQ_ACC_032	The system should be able to create supplier payment either against PO, or Invoice, or none	Must Have		
197	RQ_ACC_033	The system should be able to create advance payment for suppliers	Must Have		
198	RQ_ACC_034	The system should have the ability to record all payments of the petty cash fund	Must Have		
199	RQ_ACC_035	The system should have the ability to automatically match invoices to purchase orders and goods receipts and flag any discrepancies	Must Have		
200	RQ_ACC_036	The system should have the ability to handle partial payments, and apply them to specific line items on an invoice	Must Have		

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201	RQ_ACC_037	The system should have the ability to handle approval workflows for invoices and payments, and assign appropriate authorizations and limits	Must Have		
202	RQ_ACC_038	The system should have the ability to handle invoice adjustments and corrections	Must Have		
203	RQ_ACC_039	The system should have the ability to manage and track open invoices, and assign priorities based on due dates and other factors	Must Have		
204	RQ_ACC_040	The system should have the ability to handle payments by cheques, or direct transfer to the vendor bank account	Must Have		
205	RQ_ACC_041	The system should have the ability to set up and manage approval limits for invoices and payments, and assign appropriate authorizations	Must Have		
206	RQ_ACC_042	The system should have the ability to handle split payments, and apply them to multiple GL accounts or cost centers	Must Have		
207	RQ_ACC_043	The system should have the ability to handle and track audit trails and compliance requirements for all accounting transactions.	Must Have		
208	RQ_ACC_044	The system should allow the AP team to review and verify vendor information created by the Purchasing department, and provide controls for any changes or updates	Nice to have		
209	RQ_ACC_045	The system must be able to receive invoices within a certain tolerance level, positive or negative, as controlled by a specific authority	Nice to have		
210	RQ_ACC_046	The system should have the capability to archive hard copies of invoices into the system.	Must Have		
211	RQ_ACC_047	The system should possess the capability to accurately calculate delay penalties in the event of late payments for invoices	Must Have		
212	RQ_ACC_048	The system should provide the possibility of verifying the validity of the soft copies of invoices submitted by the contractors and ensuring their compliance with the agreed contracts and pricing.	Nice to have		
213	RQ_ACC_049	The system must be able to alert the finance department and contractors in the event of any delay or error in billing and payments, and facilitate the process of communication and coordination between the concerned parties to solve financial problems.	Must Have		



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214	RQ_ACC_050	The system must be able to process accounting for integration transitions between purchases, warehouses, and payments	Must Have		
215	RQ_ACC_051	The system should have the capability to processes and procedures the energy purchase invoices from all sides	Must Have		
216	RQ_ACC_052	The system should support calculation of monthly delay charges on invoices and reconciliation with the national company	Must Have		
217	RQ_ACC_053	The system should produce a report for the receivables ages, the balances should appear according to the due dates and according to the payments made	Must Have		
218	RQ_ACC_054	The ability to post check with future dates	Must Have		
219	RQ_ACC_055	The ability to build cheques register - to track all outstanding cheques	Must Have		
220	RQ_ACC_056	The system should provide Credit Limit for the cheques and Credit for the customers.	Nice to have		
221	RQ_ACC_057	The system should issue and print the company's incoming receipts through the collection centers, depending on the payment method (cash, checks, electronic payments, and e-payments - i.e., eFwateercom), noting that there are 15 collection centers affiliated with the company.	Must Have		
222	RQ_ACC_058	The system should conduct reconciliations/matches between the company's accounts and the company's bank account statements and show any differences	Must Have		
223	RQ_ACC_059	The system should have the ability to perform costing calculations.	Must Have		
224	RQ_ACC_060	The system should provide the ability to print checks using the system.	Must Have		
225	RQ_ACC_061	The system should be able to define every company branch in the system clearly	Must Have		
226	RQ_ACC_062	the system should be able to provide the data about the assets, when is purchased and installed	Must Have		
227	RQ_ACC_063	The system shall be able to track and record the process of reviewing and approving invoices submitted by the contractor based on works performed and materials used.	Must Have		
228	RQ_ACC_064	The system should have the functionality to allocate indirect costs to cost centers based on predefined criteria.	Must Have		



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229	RQ_ACC_065	The system should have the functionality to manage interdepartmental transactions and cost allocations.	Must Have		
230	RQ_ACC_066	The system should have the functionality to allow for the creation and management of sub-cost centers.	Must Have		
231	RQ_ACC_067	The system should have the functionality to calculate key performance indicators (KPIs) for each cost center.	Must Have		
232	RQ_ACC_068	The system should provide the ability to determine a method for calculating depreciation for the company's share of fixed assets, considering the additional contributions made by customers towards the purchase of the asset.	Must Have		
233	RQ_ACC_069	System Should be able to support Tax (VAT) management	Must Have		
234	RQ_ACC_070	The system should provide the capability to link checks to a portion of the invoice, allowing for partial payments.	Must Have		
235	RQ_ACC_071	The system should have the capability to calculate interest of delay.	Must Have		
236	RQ_ACC_072	The system should have the ability to track returned checks issued by various company subscribers.	Must Have		
237	RQ_ACC_073	Ability to classify assets based on type of assets	Must Have		
238	RQ_ACC_074	Ability to assign assets to (cost centers)	Must Have		
239	RQ_ACC_075	Ability to modify original value and depreciate over remaining useful life	Must Have		
240	RQ_ACC_076	Ability to post depreciation expense by department (cost center)	Must Have		
241	RQ_ACC_077	Ability to track asset history	Must Have		
242	RQ_ACC_078	Ability to track assets by location	Must Have		
243	RQ_ACC_079	(Ability to write up asset )The ability to increase the original cost of the asset through additions, for example	Must Have		
244	RQ_ACC_080	The system should have the ability to record and track all costs associated with each asset	Must Have		
245	RQ_ACC_081	The system should have the capability to alert administrators when scheduled maintenance or asset replacement is due.	Must Have		
246	RQ_ACC_082	The system should have the ability to manage warranties and service contracts for all assets.	Must Have		
247	RQ_ACC_083	The system should have the capability to handle different types of assets, including vehicles, machinery, equipment, and buildings.	Must Have		

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248	RQ_ACC_084	The system should have the ability to provide a visual representation of the assets, their locations, and status.	Must Have		
249	RQ_ACC_085	The system should have the capability to provide detailed asset histories, including repairs, upgrades, and maintenance.	Must Have		
250	RQ_ACC_086	The system should have the ability to perform predictive analytics for preventive maintenance and replacement.	Must Have		
251	RQ_ACC_087	The system should have the capability to manage leases, rentals, and other agreements related to assets.	Nice to have		
252	RQ_ACC_088	The system should have the capability to facilitate the disposal and replacement of assets.	Must Have		
253	RQ_ACC_089	The system should have the ability to integrate with IoT devices for real-time asset tracking and data collection.	Must Have		
254	RQ_ACC_090	The system should have the capability to track and manage intangible assets such as software licenses.	Must Have		
255	RQ_ACC_091	The system should have the capability to manage asset allocation based on project needs.	Must Have		
256	RQ_ACC_092	The system should have the ability to track and manage returnable assets.	Must Have		
257	RQ_ACC_093	The system should have the ability to manage and monitor remote assets through GIS and GPS tracking	Must Have		
258	RQ_ACC_094	The system should have the ability to integrate with SCADA systems for real-time asset monitoring.	Must Have		
259	RQ_ACC_095	The system should have the capability to manage spare parts and materials required for asset maintenance and repair.	Must Have		
260	RQ_ACC_096	The system should have the ability to calculate asset depreciation, allowing for a portion of the asset's value to be depreciated according to standard methods, and the remaining portion to be calculated based on the amortization principle. This is to account for assets that are shared between the company and the subscriber to be compliance with ERC	Must Have		
261	RQ_ACC_097	The system should have the capability to calculate and report on the cost of maintenance activities.	Must Have		
262	RQ_ACC_098	The system should be able to handle external contractors and link their financial invoices with the transactions(cases) they have completed.	Must Have		

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263	RQ_ACC_099	The system should be able to handle returned materials, and the cost of the return should be calculated when the returned material is entered into the warehouse.	Must Have		
264	RQ_ACC_100	Drill down capability from journal in GL to source in Sub ledgers	Must Have		
265	RQ_ACC_101	Ability to provide end year closing procedures and generate the financial statements with capability to rollback for flexibility purposes to reconciliations GL with sub ledgers.	Must Have		
266	RQ_ACC_102	The system should have the functionality to automatically generate balance sheets with real-time data.	Nice to have		
267	RQ_ACC_103	The system should have the functionality to generate income statements with detailed revenue and expense categories.	Must Have		
268	RQ_ACC_104	The system should have the functionality to create cash flow statements categorized by operating, investing, and financing activities.	Must Have		
269	RQ_ACC_105	The system should have the functionality to generate equity statements including all changes in owners' equity.	Must Have		
270	RQ_ACC_106	The system should have the functionality to generate segment reports based on business units, geographical locations, or cost centers or departments.	Must Have		
271	RQ_ACC_107	The system should have the functionality to establish and manage multiple cost centers based on organizational structure.	Must Have		
272	RQ_ACC_108	The system should have the functionality to generate profitability reports for each cost center.	Must Have		
273	RQ_ACC_109	The system should include a list of currencies that can be used and the differences in currency exchange rates.	Must Have		
274	RQ_ACC_110	The system should provide tools for cash flow management, bank statement reconciliation, petty cash tracking, and processing of banking transactions.	Must Have		
275	RQ_ACC_111	The system should support the functionality of cost center and analytical accounts	Must Have		
276	RQ_ACC_112	System should be able to generate and print reconciliation reports at the company level	Must Have		
277	RQ_ACC_113	The system should have the capability to provide real-time financial reporting.	Must Have		

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278	RQ_ACC_114	The system should have the functionality to integrate with banking systems for automated payments and reconciliation.	Must Have		
279	RQ_ACC_115	The system should have the functionality to maintain a detailed history of all financial transactions for audit purposes.	Must Have		
280	RQ_ACC_116	The system should be able to provide all types of required documents (such as disbursement, settlement, receipt, invoice disbursement, invoice settlement, etc.).	Must Have		
281	RQ_ACC_117	The system should provide the capability for accountants in different distribution areas to input disbursement entries prepared by them on the system, as well as some daily cash entries.	Must Have		
282	RQ_AST_001	The system should be capable of storing and retaining data related to devices and any equipment present on-site.	Nice to have		
283	RQ_AST_002	The system should provide the ability to determine a method for calculating depreciation for the company's share of fixed assets, considering the additional contributions made by customers towards the purchase of the asset.	Must Have		
284	RQ_AST_003	The system should have the ability to purchase assets through a purchase request	Must Have		
285	RQ_AST_004	Ability to classify assets based on type of assets	Must Have		
286	RQ_AST_005	Ability to assign assets to (cost centers)	Must Have		
287	RQ_AST_006	Ability to modify original value and depreciate over remaining useful life	Must Have		
288	RQ_AST_007	Ability to post depreciation expense by department (cost center)	Must Have		
289	RQ_AST_008	Ability to track asset history	Must Have		
290	RQ_AST_009	The ability to track assets by location and responsibility center.	Must Have		
291	RQ_AST_010	The ability to increase the original cost of the asset through additions.	Must Have		
292	RQ_AST_011	The system should have the capability to manage and track maintenance schedules for all assets	Must Have		
293	RQ_AST_012	The system should have the ability to record and track all costs associated with each asset	Must Have		
294	RQ_AST_013	The system should have the capability to alert administrators when scheduled maintenance or asset replacement is due.	Must Have		
295	RQ_AST_014	The system should have the ability to manage warranties and service contracts for all assets.	Must Have		

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296	RQ_AST_015	The system should have the capability to handle different types of assets, including vehicles, machinery, equipment, and buildings.	Must Have		
297	RQ_AST_016	The system should have the ability to provide a visual representation of the assets, their locations, and status.	Must Have		
298	RQ_AST_017	The system should have the capability to provide detailed asset histories, including repairs, upgrades, and maintenance.	Must Have		
299	RQ_AST_018	The system should have the capability to track energy usage and efficiency of assets.	Nice to have		
300	RQ_AST_019	The system should have the ability to perform predictive analytics for preventive maintenance and replacement.	Must Have		
301	RQ_AST_020	The system should have the capability to manage leases and other agreements related to both assets and non-assets, such as consultations.	Nice to have		
302	RQ_AST_021	The system should have the ability to manage spare parts inventory for asset maintenance and repair.	Must Have		
303	RQ_AST_022	The system should have the capability to facilitate the disposal and replacement of assets.	Must Have		
304	RQ_AST_023	The system should have the ability to integrate with IoT devices for real-time asset tracking and data collection.	Must Have		
305	RQ_AST_024	The system should have the capability to track and manage intangible assets such as software licenses.	Must Have		
306	RQ_AST_025	The system should have the capability to manage asset allocation based on project needs.	Nice to have		
307	RQ_AST_026	The system should have the ability to track and manage returnable assets.	Nice to have		
308	RQ_AST_027	The system should have the ability to manage and monitor remote assets through GIS and GPS tracking	Must Have		
309	RQ_AST_028	The system should have the ability to generate and manage purchase orders for new assets.	Must Have		
310	RQ_AST_029	The system should have the capability to manage the capital budgeting process for asset acquisition.	Must Have		
311	RQ_AST_030	The system should have the ability to record and manage asset incident and accident reports.	Must Have		
312	RQ_AST_031	The system should have the ability to manage asset tagging and labeling systems.	Must Have		
313	RQ_AST_032	The system should have the ability to integrate with SCADA systems for real-time asset monitoring.	Must Have		

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314	RQ_AST_033	The system must have the capability to manage spare parts and materials required for maintaining and repairing assets.	Must Have		
315	RQ_AST_034	The system should have the ability to calculate asset depreciation, allowing for a portion of the asset's value to be depreciated according to standard methods, and the remaining portion to be calculated based on the amortization principle. This is to account for assets that are shared between the company and the subscriber to be compliance with ERC	Must Have		
316	RQ_FIN_001	The system should be able to send the unbudgeted/overbudgeted purchase request that the has approved by the concerned manager to the finance department (budgeting section) as per authorities matrix	Must Have		
317	RQ_FIN_002	The system should be able to effectively manage and track insurance policy, and provide timely notifications regarding any insurance policy expiration	Must Have		
318	RQ_FIN_003	The system should allow the Finance Department to track and monitor the costs paid at the project level on a regular basis and update them on a daily, weekly or monthly basis.	Must Have		
319	RQ_FIN_004	The system should support monitoring of supplier guarantees	Must Have		
320	RQ_FIN_005	The system should record, document, and classify supplier guarantees based on their type	Must Have		
321	RQ_FIN_006	The system should record, document, classify, and monitor insurance documents based on their status	Must Have		
322	RQ_FIN_007	The system should include a feature for tracking the budget allocated to each bid and monitoring costs related to materials, wages and other expenses.	Must Have		
323	RQ_FIN_008	The system should be able to issue early alerts when a project is approaching a specified financial bid ceiling, allowing actions to be taken to control costs and ensure that the allocated budget is not exceeded.	Must Have		
324	RQ_FIN_009	The system should allow users to prepare detailed reports on the compatibility between the progress of completion and disbursement, with a focus on any discrepancies between disbursed amounts and expected performance	Nice to have		



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325	RQ_FIN_010	The system should allow uploading and attaching documents to the work orders	Must Have		
326	RQ_FIN_011	The system should have the functionality to generate cost center reports showing performance against budgets.	Must Have		
327	RQ_FIN_012	The system should provide the ability to build budgets at the GL account level.	Must Have		
328	RQ_FIN_013	The system must provide the necessary reports to monitor the loans (facilities) granted to the company, deposits, and calculate the accrued interest both monthly and annually. It should also generate payment transfer requests according to agreements with the company.	Must Have		
329	RQ_FIN_014	The system should have the functionality to track guarantees and banking collateral, including their expiration dates and associated costs.	Must Have		
330	RQ_FIN_015	The system should have the capability to review Purchase Requests (PRs) in terms of whether they are budgeted, not budgeted, or exceeding the budget. Additionally, it should notify the user in case the PR is not budgeted or if it surpasses the allocated budget	Must Have		
331	RQ_FIN_016	The system should have the capability to forward any budgeted Purchase Requests (PRs) to the authorized manager in the Finance Department for budget validation	Must Have		
332	RQ_FIN_017	The system must be able to track budgets and costs related to projects.	Must Have		
333	RQ_FIN_018	The system should allow entering the procurement budget into the system	Must Have		
334	RQ_FIN_019	For construction projects, the system should be able to create budget per project	Must Have		
335	RQ_FIN_020	The system should be able to send the unbudgeted/over budgeted PR to the authorized manager in Finance Department to validate the PR in terms of budget	Must Have		
336	RQ_FIN_021	The system should be able to create planned budget for the next year on the system at the GL account level	Must Have		
337	RQ_FIN_022	The ability to establish a budget report by cost center	Must Have		
338	RQ_FIN_023	The system should have the ability to predict future budgets based on historical data	Must Have		
339	RQ_FIN_024	The system should be capable of handling budget allocations and making adjustments as needed.	Must Have		

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340	RQ_FIN_025	The system should have the ability to provide detailed budget reports.	Must Have		
341	RQ_FIN_026	The system should have the capability to set up budget approval workflows	Must Have		
342	RQ_FIN_027	The system should have the capability to perform "what-if" analysis for budget planning.	Must Have		
343	RQ_FIN_028	The system should have the ability to track budget utilization in real-time	Must Have		
344	RQ_FIN_029	The system should have the capability to set up cost centers and allocate budgets accordingly.	Must Have		
345	RQ_FIN_030	The system should have the ability to manage capital budgets and operational budgets separately.	Must Have		
346	RQ_FIN_031	The system should be able to handle budget reallocations between categories.	Must Have		
347	RQ_FIN_032	The system should have the ability to accommodate unexpected expenses and adjust budgets accordingly.	Must Have		
348	RQ_FIN_033	The system should have the capability to manage grants and other forms of external funding.	Must Have		
349	RQ_FIN_034	The system should have the ability to track and report on budget variance.	Must Have		
350	RQ_FIN_035	The system should have the capability to alert when budget thresholds are nearing or exceeded.	Must Have		
351	RQ_FIN_036	The system should have the ability to automate repetitive budgeting tasks.	Must Have		
352	RQ_FIN_037	The system should have the capability to handle budget revisions and record their history.	Must Have		
353	RQ_FIN_038	The system should have the ability to calculate and apply indirect costs to the budget.	Nice to have		
354	RQ_FIN_039	The system should have the capability to accommodate multi-year budgeting.	Must Have		
355	RQ_FIN_040	The system should have the ability to integrate with project management software for effective budget control.	Must Have		
356	RQ_FIN_041	The system should have the capability to facilitate collaboration and communication during the budgeting process.	Nice to have		
357	RQ_FIN_042	The system should be capable of managing and monitoring budgets at the level of responsibility centers and categories.	Must Have		
358	RQ_FIN_043	The system should have the ability to provide drill-down budget reports for detailed analysis.	Must Have		



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359	RQ_FIN_044	The system should be able to roll over (carry forward and transfer) budgets throughout the approved two-year budget period.	Must Have		
360	RQ_FIN_045	The system should have the capability to track and manage budget amendments.	Must Have		
361	RQ_FIN_046	The system should be able to deal with procurement systems to manage the budget related to purchases.	Must Have		
362	RQ_FIN_047	The system should have the capability to allocate costs to different projects and departments.	Must Have		
363	RQ_FIN_048	The system should have the ability to provide real-time budget updates and alerts.	Must Have		
364	RQ_FIN_049	The system must be capable of ensuring compliance with regulations in budget management, such as not allowing expenditures without a reservation number and prohibiting disbursements without a confirmed disbursement number for amounts equal to or exceeding 1000.	Must Have		
365	RQ_FIN_050	The system should have the capability to manage the capital budgeting process for asset acquisition.	Must Have		
366	RQ_FIN_051	The system should have the ability to record and manage asset incident and accident reports.	Must Have		
367	RQ_FIN_052	The system should provide detailed reports on project costs and remaining budget	Must Have		
368	RQ_FIN_053	The system should be able to track and manage warranties and insurances related to suppliers and contracts	Must Have		
369	RQ_FIN_054	The system should have the ability to handle foreign currency invoices and payments, and automatically convert currency based on exchange rates	Must Have		
370	RQ_FIN_055	The system should have the capability to calculate connection costs in the accounting department based on regulatory instructions.	Must Have		
371	RQ_FIN_056	The system should provide the ability to calculate customer contributions, which are amounts paid by the customer as a portion of the original item price (this for the new subscriber)	Nice to have		
372	RQ_FIN_057	The system should provide the capability to link customer information with transformer (asset) information and calculate the customer's contribution percentage to the transformer price based on the nature of the transformer, its installation method, and the installation date.	Nice to have		

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373	RQ_FIN_058	The system should be capable of automatically calculating financial costs based on predefined pricing and in accordance with the estimates of the accounting department or project accounting	Must Have		
374	RQ_FIN_059	The system should have the capability to calculate connection costs in the accounting department based on regulatory instructions.	Must Have		
375	RQ_FIN_060	The system should be capable of issuing early alerts when the project is approaching the bid ceiling or specified financial bids. This allows for taking actions to control costs and ensure that the allocated budget is not exceeded.	Nice to have		
376	RQ_FIN_061	The system should have the functionality to allocate revenues and costs to respective cost centers automatically.	Must Have		
377	RQ_FIN_062	The system should have the functionality to perform variance analysis for cost centers.	Must Have		
378	RQ_FIN_063	The system should be able to categorize external parties paid additional work from the additional work that is covered by the company. It should also provide a statement of the value of the additional work spent for each department and compare it with the department's budget allocation for additional work.	Nice to have		
379	RQ_FIN_064	The system should have a robust credit management feature that allows users to define and configure credit limits for customers based on their creditworthiness and transaction history.	Must Have		
380	RQ_FIN_065	The system should have the ability to automatically calculate credit limits for customers using a predefined approach that considers factors such as payment history, credit record, and outstanding balances.	Must Have		
381	RQ_FIN_066	The system should provide real-time notifications and alerts to relevant stakeholders when a customer's credit limit is reached or exceeded, enabling proactive credit risk management.	Must Have		
382	RQ_FIN_067	The system should support the creation of customizable credit terms and conditions for different customer segments, ensuring flexibility in managing credit policies.	Must Have		
383	RQ_FIN_068	The system should allow users to easily adjust credit limits, terms, and conditions based on changing business requirements, and maintain an audit trail of all credit-related modifications.	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
384	RQ_FIN_069	The system should have comprehensive credit monitoring and reporting features, providing insights into the overall credit exposure, aging of receivables, and other key credit performance indicators.	Must Have		
385	RQ_FIN_070	The system should integrate with external credit reporting agencies to retrieve and update credit information on customers, enabling a more accurate assessment of creditworthiness.	Must Have		
386	RQ_FIN_071	The system should support automated credit approval workflows, allowing for efficient processing of credit requests and ensuring compliance with established credit policies.	Must Have		
387	RQ_FIN_072	The system should generate customizable credit reports, including credit utilization, payment trends, and historical credit data, to facilitate decision-making and analysis by financial managers.	Must Have		
388	RQ_FIN_073	The system should provide secure and role-based access controls to restrict access to sensitive credit-related information, ensuring that only authorized personnel can view, modify, or approve credit-related transactions.	Must Have		
389	RQ_FIN_074	The system should have an effective capability to manage and track Letters of Credit, enabling users to create and monitor them based on specific trade agreements and terms.	Must Have		
390	RQ_FIN_075	The system should provide a user-friendly interface for entering details of the Letter of Credit, including banking information, trade terms, and required documents.	Must Have		
391	RQ_FIN_076	The system should support automatic monitoring of the status of Letters of Credit, with automatic notifications to relevant parties regarding updates or changes in the status of the letter.	Must Have		
392	RQ_FIN_077	The system should be able to generate regular reports on Letters of Credit, including information such as financial values, expiration dates, and shipment details.	Must Have		
393	RQ_FIN_078	The system should allow users to upload and update documents related to Letters of Credit, such as shipping invoices, certificates of origin, and insurance invoices.	Must Have		
394	RQ_FIN_079	The system should provide mechanisms for monitoring the financial accounts associated with	Must Have		

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		Letters of Credit, including payments and associated bank fees.			
395	RQ_FIN_080	The system should allow for the management of both incoming and outgoing Letters of Credit, with the ability to filter and sort data based on various criteria.	Must Have		
396	RQ_FIN_081	The system should include mechanisms for providing reports and analyses on the costs and benefits of using Letters of Credit to facilitate decision-making processes.	Must Have		
397	RQ_FIN_082	The system should offer capabilities for monitoring and analyzing risks associated with Letters of Credit, including identifying potential delays or payment issues.	Must Have		
398	RQ_FIN_083	The system should include mechanisms for ensuring compliance with international regulations and laws related to Letters of Credit and international trade.	Must Have		
399	RQ_PLN_001	The system must be able to import data from CAD files and other specialized design software, to facilitate the quantification process and save time and effort.	Nice to have		
400	RQ_PLN_002	The system should be able to perform the necessary analyzes and estimates of the required quantities based on the input design and data, with an automatic update of the quantities when any design changes occur.	Nice to have		
401	RQ_PLN_003	The system should allow for entering a list of approved companies for renewable energy projects and defining any additional company that requires approval before being accredited.	Must Have		
402	RQ_PLN_004	The system should provide the capability to manage renewable energy requests for net metering and wheeling.	Must Have		
403	RQ_PLN_005	When submitting a new request related to renewable energy transactions, the system should accept zero fees for certain entities such as mosques.	Must Have		
404	RQ_PLN_006	The system should provide integration between the building database associated with the GIS system and the ERP system, specifically concerning subscriber information and asset data.	Must Have		
405	RQ_PLN_007	The system should have the ability to forecast energy demand based on historical data and future projections	Must Have		

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406	RQ_PLN_008	The system should have the ability to simulate and analyze different scenarios for energy distribution planning	Must Have		
407	RQ_PLN_009	The system should have the ability to collaborate with other departments and stakeholders in the energy distribution planning process	Must Have		
408	RQ_PLN_010	The system should have the ability to analyze historical consumption data to identify consumption patterns and trends	Must Have		
409	RQ_PLN_011	The system should have the capability to handle demand forecasting for different customer segments	Must Have		
410	RQ_PLN_012	The system should have the capability to generate load profiles for various customer categories	Must Have		
411	RQ_PLN_013	The system should automatically calculate the fees for studying the impact of the connection and the fees for checking the renewable energy system when the transaction is sent for accounting.	Must Have		
412	RQ_PLN_014	The system should automatically generate letters for various renewable energy system (net metering and wheeling applications) connection applications, such as completion notices, initial approvals, application rejections, study results, and more.	Must Have		
413	RQ_PLN_015	The system must be capable of managing all aspects related to planning projects, including their classification, required materials, project cost, prioritization, indication of completion rates, and delays in the implementation date. It should also provide the ability to track and generate periodic reports on these projects.	Must Have		
414	RQ_PLN_016	The system must be able to calculate the quantity of commercial losses based on sales and purchase quantities and predict future values of technical losses.	Must Have		
415	RQ_PLN_017	The system ضروري the ability to calculate the power factor of the electrical system.	Must Have		
416	RQ_PLN_018	The system should have a feature to share information and data related to future projects and required quantities among the relevant departments	Must Have		
417	RQ_PLN_019	The system should have the ability to generate and store detailed reports on energy demand and consumption.	Must Have		

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418	RQ_PLN_020	The user should have the ability to delete and edit the archive on the complaints screen while responding.	Must Have		
419	RQ_PLN_021	The dates of exporting the response book for complaints and detecting the status for samples should be displayed on the main screen of the transaction.	Nice to have		
420	RQ_PLN_022	The system should be able to create and manage work orders for maintenance and repairs in the distribution network.	Must Have		
421	RQ_PLN_023	The system should be able to track and manage inventory related to power distribution studies, specifically in terms of the distribution of subscriber and transformer loads.	Nice to have		
422	RQ_PLN_024	The system should have the capability to handle and analyze data from smart meters for energy distribution studies.	Must Have		
423	RQ_PLN_025	The system should establish a connection between the transformer display within the workflow system and the ERP screen to facilitate tracking the transformers' status and notify users of their various details. This includes the transformer's load ratio, type (Public, Private), feeding method for low-voltage networks (ground, aerial), notifying users of ongoing transactions related to the same transformer, capacity of the transformer distribution box, and indicating the presence of a light meter on the transformer being worked on to users.	Nice to have		
424	RQ_PLN_026	The system should be able to provide the ability to query all active transactions and their respective statuses, including improvement transactions, complaints, regulatory samples, and network modifications.	Must Have		
425	RQ_PLN_027	The system should be able to read the economic feasibility file in order to document the data and make future predictions using financial data and electrical losses.	Nice to have		
426	RQ_PLN_028	The system should have the capability to track the projects related to the rural electrification project and monitor their execution status.	Must Have		
427	RQ_PLN_029	The system should have the ability to create a financial list for the implemented and ongoing projects of rural electrification. Based on this list, financial measurements for rural electrification are conducted.	Must Have		



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428	RQ_PLN_030	The system should be capable of retrieving payment data currently based on SAP software (integrate workflow with the system) and consumer consumption information.	Must Have		
429	RQ_PLN_031	The system should be able to categorize payment transactions related to renewable energy into: connection fees, value of connection impact studies, fees for crossing transmission systems, and fees for reinspection resulting from system failure.	Must Have		
430	RQ_PLN_032	The system should be capable of providing quality reports regarding renewable energy management, including consumption quantities and financial reports within the renewable energy department.	Must Have		
431	RQ_PLN_033	The system should include the capability to integrate the subscriber complaints department and the call center with the system.	Must Have		
432	RQ_PLN_034	The system should be able to track the progress of the complaint.	Must Have		
433	RQ_PLN_035	The system should be linked to the email system for customers complaints.	Must Have		
434	RQ_PLN_036	The system should have the capability to extract the required information for inclusion in the monthly incidents report.	Must Have		
435	RQ_PLN_037	The system should provide a list of new customers requests.	Must Have		
436	RQ_PLN_038	The system should provide a list of subscriptions for which the technical inspection has been completed.	Must Have		
437	RQ_PLN_039	The system should provide a list of subscriptions for which the financial claims have been sent.	Must Have		
438	RQ_PLN_040	The system should provide a list of subscriptions for which the payment and delivery processes have been completed.	Must Have		
439	RQ_PLN_041	The system should provide a list of complaints filed with the company.	Must Have		
440	RQ_PLN_042	The system should provide a list of subscriptions that have been disconnected due to non-payment of bills, as well as a list of subscriptions that have made payments and have been reconnected.	Must Have		
441	RQ_PLN_043	The system should provide a mechanism for entering the monthly (NEPCO) invoice to facilitate loss calculations.	Must Have		
442	RQ_PLN_044	The system should have the capability to create an electronic loss form linked to smart meter readings.	Must Have		

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443	RQ_MNT_001	The system should have the capability to organize daily task schedules and permit re-prioritization based on the operational needs of the executing department	Nice to have		
444	RQ_MNT_002	The system should have the capability to manage and track maintenance schedules for all assets	Must Have		
445	RQ_MNT_003	The system should be able to create a maintenance order for the purpose of improving the medium-voltage network	Must Have		
446	RQ_MNT_004	The system must be able to manage and distribute tasks and responsibilities between different teams.	Nice to have		
447	RQ_MNT_005	The system must be able to manage preventive and corrective maintenance of equipment and devices and to define appropriate maintenance schedules.	Must Have		
448	RQ_MNT_006	The system must be able to accurately track and record the start and end times of workshops, enabling the measurement of workshop productivity.	Must Have		
449	RQ_MNT_007	The system should allow the ability to compare the actual start and end dates of workshops with the planned dates, to identify gaps and improve work schedules and implementation.	Must Have		
450	RQ_MNT_008	The system should allow prioritization of maintenance requests for sudden technical failures or scheduled maintenance.	Must Have		
451	RQ_MNT_009	The system should provide a hierarchical sequence of approvals to obtain approval for the maintenance request.	Must Have		
452	RQ_MNT_010	The system should be able to assist the user in determining whether the required materials are available.	Must Have		
453	RQ_MNT_011	The system should include a feature for issuing the required materials and approving them according to the authority matrix.	Must Have		
454	RQ_MNT_012	The system should be capable of tracking the status of open maintenance requests until they are closed.	Must Have		
455	RQ_MNT_013	The system should provide a user transaction log (audit trail) for all transactions.	Must Have		
456	RQ_MNT_014	The system should be capable of sending maintenance requests of various types to the relevant parties for approval based on the authorization matrix.	Must Have		



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457	RQ_MNT_015	The system should have a comprehensive record of fixed assets specific to the maintenance department, allowing access to material consumption data in order to make equipment replacement decisions based on their age.	Must Have		
458	RQ_MNT_016	The system should provide the capability to manually close any pending maintenance orders.	Must Have		
459	RQ_MNT_017	The system should require a re-approval process if any changes are made after the approval of the maintenance order.	Nice to have		
460	RQ_MNT_018	The system should be able to create a new maintenance order based on a previous maintenance order.	Must Have		
461	RQ_MNT_019	The system should be capable of issuing early alerts when approaching pre-scheduled maintenance dates, enabling necessary actions to be taken.	Must Have		
462	RQ_MNT_020	The system should allow users to cancel a maintenance request before it is approved.	Must Have		
463	RQ_MNT_021	The system should support a feature for preventive maintenance that allows for a pre-scheduled plan to be set up within the system	Must Have		
464	RQ_MNT_022	The system should be able to maintain a checklist for the actions to be taken to perform the maintenance work	Must Have		
465	RQ_MNT_023	The system should have the ability to track the status of ongoing maintenance activities.	Must Have		
466	RQ_MNT_024	The system should have the capability to manage and allocate resources for each maintenance job.	Must Have		
467	RQ_MNT_025	The system should have the ability to manage and monitor maintenance inventory, including necessary parts and tools.	Must Have		
468	RQ_MNT_026	The system should have the ability to track the time and labor spent on each maintenance task.	Must Have		
469	RQ_MNT_027	The system should have the ability to manage and monitor the budget of the maintenance department	Nice to have		
470	RQ_MNT_028	The system should have the capability to maintain a historical record of all maintenance activities.	Must Have		
471	RQ_MNT_029	The system should have the ability to notify operations and management of upcoming scheduled maintenance.	Must Have		
472	RQ_MNT_030	The system should have the capability to integrate with Customer Service (CS) module to track and manage customer issues related to maintenance.	Must Have		

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473	RQ_MNT_031	The system should have the capability to schedule preventative maintenance tasks and alert the relevant personnel when the tasks are due.	Must Have		
474	RQ_MNT_032	The system should have the ability to automate the process of issuing work orders for maintenance tasks.	Must Have		
475	RQ_MNT_033	The system should have the ability to track the status of each work order, from issuance to completion.	Must Have		
476	RQ_MNT_034	The system should have the ability to manage maintenance requests from customers and schedule them efficiently.	Must Have		
477	RQ_MNT_035	The system should have the ability to store technical manuals and other related documents for each piece of equipment.	Must Have		
478	RQ_MNT_036	The system should have the capability to manage and monitor the lifespan of each piece of equipment.	Must Have		
479	RQ_MNT_037	The system should have the ability to record and track the causes of equipment failures.	Must Have		
480	RQ_MNT_038	The system should have the capability to assign and track work orders for both routine and emergency maintenance tasks.	Must Have		
481	RQ_MNT_039	The system should have the ability to prioritize maintenance tasks based on their urgency and impact on operations.	Must Have		
482	RQ_MNT_040	The system should have the ability to generate comprehensive reports on maintenance activities, costs, and performance.	Must Have		
483	RQ_MNT_041	The system should be capable of preparing the scheduled electricity bill or cut off and sending it to the relevant departments.	Must Have		
484	RQ_MNT_042	The system should be capable of generating detailed reports on unplanned outages.	Nice to have		
485	RQ_MNT_043	The system should be capable of tracking materials and personal covenants that require periodic inspection and calibration, and sending notifications prior to the designated deadline.	Must Have		
486	RQ_MNT_044	The system should be capable of notifying the maintenance engineer about the scheduled periodic maintenance for the vehicles used by the workshop.	Must Have		
487	RQ_MNT_045	The system should be capable of creating requests for inspecting returned materials and identifying	Nice to have		

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		the materials associated with insurance and warranty procedures.			
488	RQ_MNT_046	The system should be capable of alerting in case of recurring issues and observations on the same equipment that has undergone maintenance.	Must Have		
489	RQ_MNT_047	The system should be capable of managing incidents and risks caused by external parties and creating specific transactions (Incidences) for such cases, managing them both financially and technically.	Nice to have		
490	RQ_MNT_048	The system should be able to manage event(ceremonies) circuit breakers, track their installation and removal, monitor their inventory, and handle their financial and technical aspects.	Must Have		
491	RQ_MNT_049	The system should be capable of analyzing technical failures and generating reports.	Nice to have		
492	RQ_MNT_050	The system should have the ability to prepare reports dedicated to response time and repair time of faults.	Must Have		
493	RQ_MNT_051	The system should be capable of monitoring and managing the inventory of available materials along with the required technical resources for maintenance tasks, across all material types or classes.	Must Have		
494	RQ_MNT_052	The system should be capable of generating daily, monthly, and annual productivity reports for each technician and department within the Central Emergency Department.	Must Have		
495	RQ_MNT_053	The system should have the ability to create the weekly work schedule for the staff of the Central Emergency Department, considering employee vacations and breaks from their shifts on Fridays and Saturdays, as well as shifts during official holidays.	Must Have		
496	RQ_MNT_054	The system should be able to generate daily work schedules for the employees of the Central Emergency Department.	Nice to have		
497	RQ_MNT_055	The system should be able to classify faults according to their nature.	Must Have		
498	RQ_MNT_056	The system should be able to alert the user if the same issue occurs with the same subscriber.	Nice to have		
499	RQ_MNT_057	The system must establish a mechanism for alerting in the event of an increase in station loads, ensuring that it is clearly displayed on the program.	Nice to have		

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500	RQ_MNT_058	The system should develop a mechanism to input the coordinates of meters into the program, making them useful for future maintenance tasks and linking them to maintenance teams through the complaint system.	Must Have		
501	RQ_TCH_001	The system should handle the flow of work order from the subscriptions section	Must Have		
502	RQ_TCH_002	During the creation of a work order, the system should be capable of informing the user about the available quantity of required materials for the work order. If the material is not available, it should notify when the material will be available, in coordination with the relevant departments.	Nice to have		
503	RQ_TCH_003	The system should plan for the resources needed for any work, including resource allocation and the anticipated work and time required.	Nice to have		
504	RQ_TCH_004	The system should allow for the attachment of CAD files or any other files worked on during the design phase.	Must Have		
505	RQ_TCH_005	The system should have the capability to convert transactions into electronic estimates (related items and quantities) according to the established pricing and the equation available in the electronic system and send the transaction through the workflow	Must Have		
506	RQ_TCH_006	The system should be capable of storing and retaining data related to devices and any equipment present on-site.	Nice to have		
507	RQ_TCH_007	The system should be able to manage work orders related to network improvements, link them within the system, and display them to the relevant departments.	Nice to have		
508	RQ_TCH_008	The system should allow for the easy and accurate entry of information related to the project, design, and quantification determination.	Must Have		
509	RQ_TCH_009	The system should be capable of allowing the creation of a work order and specifying all the tasks that the contractor needs to perform based on that order.	Must Have		
510	RQ_TCH_010	The system should be able to plan for the daily workshop schedule needed for the detection and design team	Nice to have		
511	RQ_TCH_011	The system should show materials of the same classification when creating a work order, allowing the user to choose the best option for the job	Nice to have		

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512	RQ_TCH_012	The system should provide the ability to manage the allocated resources for workshops.	Nice to have		
513	RQ_TCH_013	The system should be able to generate detailed reports on the overall performance of teams and projects.	Must Have		
514	RQ_TCH_014	The system should be able to build the BOQ needed to deliver the service, and that BOQ will be a reference for pricing and issuing the materials from the stock.	Nice to have		
515	RQ_TCH_015	The system should be able to facilitate the arrangement of the daily implementation program and allow for re-prioritization based on the discretion of the relevant department head.	Nice to have		
516	RQ_TCH_016	The system should allow uploading and attaching documents to the work orders	Must Have		
517	RQ_TCH_017	The system should allow users to access historical and future information for projects and resources.	Must Have		
518	RQ_TCH_018	The system must be able to track the stages of projects, check the schedule and monitor the budget related to it.	Must Have		
519	RQ_TCH_019	The system should include the capability to link work orders to the materials issued from the warehouses, ensuring precise tracking of materials and costs associated with each project or operation.	Must Have		
520	RQ_WH_001	The system should provide the capability to generate a report that displays the materials and their associated costs.	Must Have		
521	RQ_WH_002	The system must offer the capability of transferring meters from the main warehouse to the meters department, applicable to all materials.	Must Have		
522	RQ_WH_003	The system should provide the capability to deal with the meters returned by subscribers.	Must Have		
523	RQ_WH_004	The issuance of materials from inventory should follow the FIFO (First In, First Out) system, with the ability for users to change the selection based specified authority	Must Have		
524	RQ_WH_005	The system must provide the capability to release reservations for materials that have been reserved for a specific execution order, but based on authority	Must Have		

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525	RQ_WH_006	The system should be able to display alternative materials to those originally available when creating the cost list, and it should be capable of informing the user about the quantity of available materials during work order creation. If the material is unavailable, it should provide an estimated availability date.	Nice to have		
526	RQ_WH_007	The system should be able to attach meter certificates (inspection of every 20 meters) during the inspection, approval, and preparation process for meter installation	Nice to have		
527	RQ_WH_008	The system should handle the return of rejected meters, with the meter department receiving the returned meter along with a return document, and documenting it in the workflow.	Nice to have		
528	RQ_WH_009	The system should provide the capability to reserve materials from warehouses based on the quantities determined during the survey.	Must Have		
529	RQ_WH_010	when displaying the materials to be selected for the work order the system shouldn't show the materials with zero stock or blocked	Nice to have		
530	RQ_WH_011	The system should be able to deal with action related to inspecting the meter devices and record all the data related to the results, including attaching the inspection certificate.	Nice to have		
531	RQ_WH_012	The system should have the capability to deal with the returns of the meter devices from the customer side	Must Have		
532	RQ_WH_013	The system should provide the capability to reserve materials from warehouses for a specific time based on the work order prepared during the survey	Must Have		
533	RQ_WH_014	The system should be able to provide the capability to issue a warning message when the minimum inventory threshold is reached, particularly when creating execution orders.	Must Have		
534	RQ_WH_015	The system should provide the Warehouse Department with access to all transactions in progress and the status of using stored materials, in order to facilitate the planning and distribution process and avoid shortages or overstocking in materials.	Must Have		
535	RQ_WH_016	The system should enable automatic notifications to be sent to the Warehouse Department when executing a new transaction or when there is a need for stored materials.	Nice to have		

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536	RQ_WH_017	The system should be able to display the total issued materials for a set of work orders	Must Have		
537	RQ_WH_018	The system should allow (under conditions) the issuance of materials before adding all additional costs to the material cost.	Nice to have		
538	RQ_WH_019	The system should have the ability to manage spare parts inventory for asset maintenance and repair.	Must Have		
539	RQ_WH_020	The system should have the ability to manage asset tagging and labeling systems.	Must Have		
540	RQ_WH_021	The system should have the capability to manage and monitor the inventory of spare parts, tools, and general safety equipment available with the technicians in real-time, ensuring applicability of real-time availability to all materials.	Must Have		
541	RQ_WH_022	The system should have the capability to predict the future maintenance needs based on the historical data.	Must Have		
542	RQ_WH_023	The system should have the ability to automatically generate preliminary notifications for material arrival at central warehouses.	Must Have		
543	RQ_WH_024	The system should prepare forecasts for each department individually, regarding other departments, and send them to the inventory control through email.	Must Have		
544	RQ_WH_025	The system should be able to provide the capability to transfer meters from the main warehouse to the meter department sections.	Must Have		
545	RQ_WH_026	The system should provide the capability to handle returned meters from customers.	Must Have		
546	RQ_WH_027	The system should provide the capability to manage the custody of items subject to both personal and administrative custody systems separately.	Must Have		
547	RQ_WH_028	The system should be able to provide the capability to assign barcodes to materials.	Must Have		
548	RQ_WH_029	The system should be able to send automatic notifications to the warehouse department when a work order is issued to improve coordination and resource planning	Nice to have		
549	RQ_WH_030	The system should allow the possibility of modifying and updating issue transaction based on changes in work orders, to ensure high flexibility in managing projects and resources.	Must Have		



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550	RQ_WH_031	The system should incorporate a report attachment feature enabling the verification of materials used and returned during the installation process, aligning with the reports submitted by both the contractor and supervising technician for conformity.	Must Have		
551	RQ_WH_032	The system should support defining multiple locations in the warehouse; each location could represent either logical or physical one	Nice to have		
552	RQ_WH_033	The system should be able to allow define the serial number or batch number for each material in the warehouse	Nice to have		
553	RQ_WH_034	The system should allow the grouping of the materials in a hierarchical way	Must Have		
554	RQ_WH_035	The system should have the ability to modify stock inventory movements but be controlled with a certain level of authority	Must Have		
555	RQ_WH_036	The system should allow the stock transfer from warehouse to warehouse but with two-level authority (sender and receiver)	Must Have		
556	RQ_WH_037	The system should allow partial receiving from the purchase order	Must Have		
557	RQ_WH_038	The system should be able to display the stock movement within a period of time identified by the user	Must Have		
558	RQ_WH_039	The system should provide a stock balance report	Must Have		
559	RQ_WH_040	The system should support managing the asset stock within the warehouse management system	Must Have		
560	RQ_WH_041	Ability to print the goods receipt voucher from the system and keep it as a hardcopy	Must Have		
561	RQ_WH_042	The system should be able to display the stock in transit during the transfer from warehouse to warehouse or from location to location	Must Have		
562	RQ_WH_043	The system should allow displaying of consolidated stock of products for the multiple warehouses / locations	Must Have		
563	RQ_WH_044	The system should be able to deal with the scrapped materials but with certain authority	Must Have		
564	RQ_WH_045	The system should be able to reflect the stock movement into the accounting records in real-time	Must Have		
565	RQ_WH_046	The system should be able to cancel or reverse inventory transactions without deleting it	Must Have		
566	RQ_WH_047	Ability to prevent rejected/blocked materials from being issued from the warehouse	Must Have		



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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
567	RQ_WH_048	The system should be able to manage the stock at the shelf level	Nice to have		
568	RQ_WH_049	The system should have the functionality to issue the materials to a specific cost center	Must Have		
569	RQ_WH_050	The system should have the functionality to trace the material movements (receiving, issuing, and transferring)	Must Have		
570	RQ_WH_051	The system should be able to display slow-moving and stagnant items within specific time intervals.	Must Have		
571	RQ_WH_052	The system must manage the stock-takes in accordance with the company's policies and instructions	Must Have		
572	RQ_WH_053	The system should have the ability to support barcode scanning and RFID tracking for accurate inventory management	Must Have		
573	RQ_WH_054	The system should have the capability to manage and monitor stock levels according to predefined reorder points and safety stock levels	Must Have		
574	RQ_WH_055	The system should have the capability to support various inventory valuation methods, such as FIFO, and weighted average.	Must Have		
575	RQ_WH_056	The system should have the capability to manage returns	Must Have		
576	RQ_WH_057	The system should have the capability to manage and track inventory reservations for specific customers or projects	Must Have		
577	RQ_WH_058	The system should have the capability to manage and track the use of warehouse consumables, such as packaging materials and safety equipment.	Must Have		
578	RQ_WH_059	The system should have the capability to support multiple units of measure for inventory items, such as weight, volume, and quantity.	Must Have		
579	RQ_WH_060	The system should have the ability to manage and monitor warehouse performance indicators, such as order accuracy, selection rate, and inventory turnover.	Must Have		
580	RQ_WH_061	The system should have the ability to manage and monitor quality control processes within the warehouse, including tracking and documenting quality issues.	Nice to have		
581	RQ_WH_062	The system should have the ability to support integration with enterprise asset management (EAM) systems for tracking and managing warehouse assets	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
582	RQ_WH_063	The system must be capable of enabling stock storage in a restricted area where it cannot be utilized	Must Have		
583	RQ_WH_064	The system should be capable of accepting stock into the staging area before transferring it to the designated bin.	Must Have		
584	RQ_WH_065	The system should have the ability to define various material status types, such as released, blocked, and quarantine.	Must Have		
585	RQ_WH_066	The system should enable various levels of receiving approvals, as the receiving process is conducted by a committee consisting of multiple members.	Must Have		
586	RQ_WH_067	The system should permit warehouse-to-warehouse transfers, which should have an impact on accounting	Must Have		
587	RQ_WH_068	The system must allow for pre-determined storage locations to be assigned to each material, so that when the materials are received, the system can suggest the appropriate and available storage location.	Nice to have		
588	RQ_WH_069	The system should have the capability to map the entire warehouse complex in detail, down to storage bin level and storage locations	Nice to have		
589	RQ_WH_070	The system must provide the capability to fully reserve materials when creating work orders, to avoid mistakenly issuing them due to other work orders.	Must Have		
590	RQ_WH_071	The system must provide the ability to enter and store materials using the Batch/Lot management, especially for materials that are purchased multiple times, such as meters.	Must Have		
591	RQ_WH_072	The system ضروري the ability to freeze (block) specific materials upon their expiration, or when they are no longer required for future use.	Must Have		
592	RQ_WH_073	The system should allow partial receiving against the purchase order.	Must Have		
593	RQ_WH_074	The system should provide the ability to add new materials that were not previously included in the system.	Must Have		
594	RQ_WH_075	The system should be able to integrate with PDA or barcode reader for all the stock items for all the inventories transactions and Physical inventory adjustment.	Must Have		

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## 2. MDM Requirements:

No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
1		GENERAL REQUIREMENTS			
2	MDM_01	Meter Configuration			
3	MDM_01_001	The MDM shall have the functionality to create master data for all types of devices	Must Have		
4	MDM_01_002	The MDM shall provide the flexibility to add the required fields in the respective master data as per EDCO requirements	Must Have		
5	MDM_01_003	The MDM shall allow the device types to be configurable and new device types to be added without customization	Must Have		
6	MDM_01_004	The MDM shall allow the communication with the meters and the monitoring and control of the devices in real time	Must Have		
7	MDM_01_005	The MDM shall be able to communicate with compatible end devices indoors and outdoors	Must Have		
8	MDM_01_006	The MDM shall have the functionality to identify the meters or communication equipment based on their status (shipped, deployed, removed etc.), location (area wise as per address structure) and include technical network structure	Must Have		
9	MDM_01_007	The MDM shall be able to edit or correct the wrong entries during installation or in any process related to equipment	Must Have		
10	MDM_01_008	The MDM shall have the ability to add as many registers as required for each meter configuration	Must Have		
11	MDM_01_009	The MDM shall have the ability to add and modify new configurations for all types of meters	Must Have		
12	MDM_01_010	The MDM shall have the ability to define and simulate test meters/meter configurations	Must Have		
13	MDM_01_011	The MDM shall have the ability to define derived channels/registers from received channels/registers for any meter	Must Have		
14	MDM_01_012	The MDM shall allow the definition of at least 3 types of load profiles with the possibility of defining unlimited number of registers/factors as per EDCO requirement.	Must Have		
15	MDM_01_013	The MDM shall allow the configurability of the frequency of recording interval data with respect to profiles.	Must Have		
16	MDM_01_014	The MDM shall be able to perform aggregations of recorded consumptions based on configurable dimensions.	Must Have		
17	MDM_01_015	The MDM shall have the ability to capture network location for system meters (e.g., feeder, distribution transformers).	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
18	MDM_01_016	The MDM shall have the ability to create virtual meter in system based on data aggregation for meters	Must Have		
19	MDM_01_017	The MDM shall have the ability to define reference / check meter for any meter in system	Must Have		
20	MDM_01_018	The MDM shall be able to synchronize meter configurations from CIS/SAP billing system	Must Have		
21	MDM_01_019	The MDM shall support mass master data synchronization	Must Have		
22	MDM_01_020	The MDM shall allow to search meters depending on different configuration information such as meter serial number, account number, custom fields, etc.	Must Have		
23	MDM_01_021	The MDM shall support device management functionalities which include (but not limited to) firmware update, remote access, remote configuration, etc.	Must Have		
24	MDM_01_022	The MDM shall have the ability to show meter data on graphs and tabular formats	Must Have		
25	MDM_02	Meter Data Collection			
26	MDM_02_001	The MDM shall be a scalable system with the capability to handle up to 300,000 electricity meters (with 15-, 30-, and 60-minute intervals) considering that this number is expected to grow by 4% yearly.	Must Have		
27	MDM_02_002	The MDM shall support multiple channel meters with capability to record electricity meter data, events and flags like kWh, KVAH, KVARH, flow rate and other data	Must Have		
28	MDM_02_003	The MDM shall support multiple Unit of Measure (UOM) for electricity meters, including custom UOM if required	Must Have		
29	MDM_02_004	The MDM shall support net meters.	Must Have		
30	MDM_02_005	The MDM shall support bi-directional (import/export) meters	Must Have		
31	MDM_02_006	The MDM shall support power quality data, voltage, etc. if available from AMI system/meters	Must Have		
32	MDM_02_007	The MDM shall support the provisioning of meters (new meter, exchange, removal, etc.)	Must Have		
33	MDM_02_008	The MDM shall have the ability to collect all meter reads – register, interval, demand, and any other tariff-based reads for electricity meters	Must Have		
34	MDM_02_009	The MDM shall have the ability to ping meters to check the status	Must Have		
35	MDM_02_010	The MDM shall have the ability to get real time ‘On Demand Reads’	Must Have		
36	MDM_02_011	The MDM shall support remote connection and disconnection of electricity smart meters (depends on availability of these functionalities in the meter)	Must Have		
37	MDM_02_012	The MDM shall have the ability to verify the AMI network connectivity of installed meters via the HESs	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
38	MDM_02_013	The MDM shall have the ability to collect data from data collectors based on push or pull method	Must Have		
39	MDM_02_014	The MDM shall have the ability to support the deployment, planning and logistics modules for a smart meter mass rollout project	Must Have		
40	MDM_02_015	The MDM shall have the ability to select time zone (local time zone would be used)	Must Have		
41	MDM_02_016	The MDM shall be able to maintain the hierarchies of meters installed by EDCO (such as main and sub meters) and distribution network elements (such as transformers, feeders, etc.)	Must Have		
42	MDM_02_017	The MDM shall have the ability to define and maintain reference meter/consumption for different customers or meter types as required by EDCO	Must Have		
43	MDM_02_018	The MDM shall accept all data from the HES or HHU	Must Have		
44	MDM_02_019	The MDM shall support data coming from single phase and poly phase electricity meters as well as CTs and CTs/VTs meters	Must Have		
45	MDM_02_020	The MDM shall identify and store the usage data source (e.g., manual read, AMR, AMI, ...etc)	Must Have		
46	MDM_02_021	The MDM shall set the initial status of the received data to "raw"	Must Have		
47	MDM_02_022	The MDM shall set the interval timestamp at the beginning of the interval	Must Have		
48	MDM_02_023	The MDM shall timestamp the data for each interval represented	Must Have		
49	MDM_02_024	The MDM shall timestamp the time data is received	Must Have		
50	MDM_02_025	The MDM shall recognize the receipt of interval(s) that already exist in the MDM database	Must Have		
51	MDM_02_026	The MDM shall handle duplicate data based on pre-defined criteria (e.g., raw meter data will not replace billed data)	Must Have		
52	MDM_02_027	The MDM shall allow the user to select existing or duplicate data to be stored or processed while working with duplicate data for a specific meter	Must Have		
53	MDM_02_028	The MDM shall log the actions taken by the user in relation to the duplicated data	Must Have		
54	MDM_02_029	The MDM shall have the ability to import data from a variety of data sources (e.g., pick-up read, 3rd party) and formats (e.g., MS Excel, MS Access, text files).	Must Have		
55	MDM_03	Channel Configuration			
56	MDM_03_001	The MDM shall identify the type of data represented by each channel within the meter (e.g., kWh consumed, kVARh consumed, gross kWh generated, net kWh generated, voltage, and timing), the MDM shall support	Must Have		

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		at least the following quantities per each TOU rate, each in a separate register: (*)			
(*)	Measured item				Unit
	Active Energy	Billing period m -Total import	(QI+QIV)		kWh+
		Billing period m –Tariff n import	(QI+QIV)		kWh+
		Billing period m -Total export	(QII+QIII)		kWh+
		Billing period m –Tariff n export	(QII+QIII)		kWh+
		Billing period m – Absolute total	abs(QI+QIV)+abs(QII+QIII)		kWh+
		Billing period m –Net Total	abs(QI+QIV)-abs(QII+QIII)		kWh+
	Reactive Energy	Billing period m –Total import	(QI+QII)		kVARh+
		Billing period m –Tariff n import	(QI+QII)		kVARh+
		Billing period m –Total export	(QIII+QIV)		kVARh-
		Billing period m –Tariff n export	(QIII+QIV)		kVARh-
	Active Power	Billing period m – Total Import Max Demand with Time Stamp	(QI+QIV)		kW
		Billing period m –Tariff n – Total Import Max Demand with Time Stamp	(QI+QIV)		kW
		Billing period m –			
		Total Export Max Demand with Time Stamp	(QII+QIII)		kW
		Billing period m –Tariff n –			
		Total Export Max Demand with Time Stamp	(QII+QIII)		kW
	Reactive Power	Billing period m –	(QI+QII)		kVAR
		Total import Max Demand with Time Stamp			
		Billing period m –Tariff n –			
		Total import Max Demand with Time Stamp	(QI+QII)		kVAR
		Billing period m –			
		Total export Max Demand with Time Stamp	(QIII+QIV)		kVAR
		Billing period m –Tariff n –			
		Total export Max Demand with Time Stamp	(QIII+QIV)		kVAR
		m: billing period index, n: tariff index			
57	MDM_03_002	The MDM shall be capable to collect data from all meter data channels for all data type (scalar or interval) that the electricity meter can handle.	Must Have		
58	MDM_03_003	The MDM shall support measurements including but not limited to: Active energy, Reactive energy, Apparent energy	Must Have		



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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
59	MDM_03_004	The MDM shall receive updated channel configuration from the system of record and update its database accordingly (this may be triggered by a meter change, re-program, or other actions)	Must Have		
60	MDM_03_005	The MDM user shall have the ability to easily view and identify the type of data represented by each channel	Must Have		
61	MDM_03_006	The MDM shall have the ability to keep the history of which data was represented in which channel over time (i.e., keep track of the changes to channel configuration and of the date of the change)	Must Have		
62	MDM_04	Register Reads			
63	MDM_04_001	The MDM shall pass all register dial reads (including all decimal points, without rounding/truncating) to the billing system	Must Have		
64	MDM_04_002	The MDM shall control the frequency and/or conditions for retrieving a meter register read (e.g., retrieve register read with every interval read), retrieving register read during post-VEE (when calculating billing determinants), retrieving a smart meter register read when requested	Must Have		
65	MDM_04_003	The MDM shall control the frequency of meter register read to be set globally, for a set of meters based on pre-defined criteria, or for an individual meter	Must Have		
66	MDM_04_004	The MDM shall be able to initiate a request to an external system to schedule meter read requests for non-smart meters based on the billing cycle received from the CIS	Must Have		
67	MDM_04_005	The MDM shall provide the register read for a specific meter or group of meters real time when requested by an authorized user (i.e., on-demand register read)	Must Have		
68	MDM_04_006	The MDM shall calculate engineering units using the meter-specific pulse multiplier	Must Have		
69	MDM_04_007	The MDM shall store interval data in engineering units	Must Have		
70	MDM_04_008	The MDM shall maintain the entire decimal in each interval (no rounding)	Must Have		
71	MDM_04_009	In addition to the floating-point decimal, the MDM shall store at least the same number of values after the decimal point in alignment with the pulse multiplier for each specific meter.	Must Have		
72	MDM_05	Validation, Editing & Estimation (VEE)			
73	MDM_05_001	The tenderer is requested to provide the full range of the pre-built VEE rules available in the proposed MDM solution	Must Have		
74	MDM_05_002	The MDM shall perform validation and estimation routines that account for energy and demand imports from customers	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
75	MDM_05_003	The MDM shall validate meter determinants prior to billing for both interval and register data	Must Have		
76	MDM_05_004	The MDM shall validate asset information for each meter data file received (e.g., meter-to-premise validation, meter relative to meter determinants, compare and validate between same type of customers/area, etc.)	Must Have		
77	MDM_05_005	The MDM shall perform validations on interval meter data (all tiers)	Must Have		
78	MDM_05_006	The MDM shall create specific validation groups based on various parameters and rules. The rules for these validation groups can be created to account for specific validations	Must Have		
79	MDM_05_007	The MDM shall perform automated estimation and/or substitution of interval and register usage data based on a series of programmatic rules and historical data	Must Have		
80	MDM_05_008	The MDM shall support manual estimation and substitution of data. This includes adding or replacing values on screen, estimating, and substituting multiple channels on screen, etc.	Must Have		
81	MDM_05_009	The MDM shall check for missed reads and send corrected data to the CIS when the reads are received	Must Have		
82	MDM_05_010	The MDM shall flag estimated meter data to highlight this in other systems	Must Have		
83	MDM_05_011	The MDM shall store meter data in designated repository to act as system of record	Must Have		
84	MDM_05_012	The MDM shall automatically edit the data where no/missing data was recorded with the complete acquired data	Must Have		
85	MDM_05_013	The MDM shall allow the manual editing of the data where no/missing data was recorded with the complete acquired data	Must Have		
86	MDM_05_014	The MDM shall validate and edit the meter reads	Must Have		
87	MDM_05_015	The MDM shall complete estimations on meter data	Must Have		
88	MDM_05_016	The MDM shall have the ability to manually edit the automatically corrected/estimated readings	Must Have		
89	MDM_05_017	The MDM shall allow the easy configuration of rules for validation, estimation and editing without the need for coding or customization	Must Have		
90	MDM_05_018	The MDM shall allow the definition of separate set of rules for distinct types of meters/customers	Must Have		
91	MDM_05_019	The MDM shall provide standard validations and estimations rules and shall allow for the customization of validation and estimation rules to fulfil EDCO business need (if required)	Must Have		



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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
92	MDM_05_020	The MDM shall have the ability to show raw and estimated data comparison on graph and to restore raw data (if required)	Must Have		
93	MDM_05_021	The MDM shall have the ability to define distinct set of rules for different data sources (direct from source, manually uploaded, etc.)	Must Have		
94	MDM_05_022	The MDM shall have the ability to generate and store logs for VEE and manual edits	Must Have		
95	MDM_05_023	The MDM shall provide a user interface portal with filters (e.g., date, exception type, etc.) to see failed validation and estimation meter reads and user to validate data manually	Must Have		
96	MDM_05_024	The MDM shall have the ability to identify/flag the actual, edited, estimated, and manually corrected readings separately with established priorities for bill determinant calculations	Must Have		
97	MDM_05_025	The MDM shall have the ability to correlate abnormal interval data patterns	Must Have		
98	MDM_05_026	The MDM shall perform certain interval data validations immediately upon receipt of interval data (these are validations that do not require a full day of interval data to be executed)	Must Have		
99	MDM_05_027	The MDM shall perform VEE rules when the data required to perform a specific validation is available	Must Have		
100	MDM_05_028	The MDM shall have the ability to support unique validation rules for each operating area	Must Have		
101	MDM_05_029	The MDM shall provide validation processes to handle variable interval lengths	Must Have		
102	MDM_05_030	The MDM shall allow the validation results to be logged, including the results of pre and post VEE processes	Must Have		
103	MDM_05_031	The MDM shall allow the validation log entries to be time stamped	Must Have		
104	MDM_05_032	The MDM log shall record whether the validation exception is handled by a user (store user ID) or automatically by the system	Must Have		
105	MDM_05_033	The MDM shall automatically summarize validation result data according to pre-defined parameters	Must Have		
106	MDM_05_034	The MDM shall recognize data status (e.g., actual vs. estimated data)	Must Have		
107	MDM_05_035	The MDM shall validate the account information prior to sending summarized billing determinants to the billing system	Must Have		
108	MDM_06	Events and Incident Management			
109	MDM_06_001	The MDM shall support theft and tamper detection based on meter flags and events	Must Have		
110	MDM_06_002	The MDM shall provide event correlation functionalities	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
111	MDM_06_003	The MDM shall support theft and revenue loss identification through analytics and reports (such as single phasing in 3-phase meters, usage pattern, zero consumption, irregular consumptions in electricity meters, etc.)	Must Have		
112	MDM_06_004	The MDM shall provide alert and event features	Must Have		
113	MDM_06_005	The MDM shall have the ability to define categories, priorities, and criticality for each event	Must Have		
114	MDM_06_006	The MDM shall have the ability to configure workflow based on events	Must Have		
115	MDM_06_007	The MDM shall have the ability to send mail & SMS alerts for any alert, if configured	Must Have		
116	MDM_07	Work Queues			
117	MDM_07_001	The MDM shall have the ability to create work queues based off failed meter data validations during the VEE process	Must Have		
118	MDM_07_002	The MDM shall automatically close work queues individually and in bulk as part of the normal work item life cycle	Must Have		
119	MDM_07_003	4.7.3. The MDM shall track the status of all service orders/ work queues that relate to meter data and meter maintenance and shall be able to generate reports which include (but are not limited to) open orders (orders by type, orders by age, past due orders, and closed orders).	Must Have		
120	MDM_07_004	The MDM shall identify specific meter diagnostic flag/event combinations and automatically generate work queues	Must Have		
121	MDM_07_005	The MDM shall allow appropriate and authorized users to easily create new work queues through a graphical user interface	Must Have		
122	MDM_07_006	The MDM shall allow appropriate and authorized users to easily create and edit new workflow processes through a graphical user interface that will specify the steps of the workflow, business rules around each step, authorized users, and control points that require manual authorization	Must Have		
123	MDM_07_007	The MDM shall monitor and identify specific events flag/event combinations and automatically generate work queues	Must Have		
124	MDM_07_008	The MDM shall allow the configuration of message queues based on (but not limited to) priority, time validation, and other parameters as required	Must Have		
125	MDM_08	Meter Diagnostics			

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
126	MDM_08_001	The MDM shall identify specified meter diagnostic and event combinations occurring within a specific time window and automatically generate field service requests, reports, and work queues	Must Have		
127	MDM_08_002	The MDM shall have the ability to flag, generate alarms, and trigger VEE rules when anomalies occur such as: <ul style="list-style-type: none"> <li>Anomalies in interval reads</li> <li>Anomalies in cumulative register reads</li> <li>Anomalies in TOU/ interval register reads</li> <li>Anomalies in demand register reads</li> </ul>	Must Have		
128	MDM_08_003	The MDM shall flag data changes from manual edits, VEE rules, and data source corrections	Must Have		
129	MDM_08_004	The MDM shall interpret the alert messages into various categories such as power outage, tamper, etc.	Must Have		
130	MDM_08_005	The MDM shall automatically receive the information regarding failures to upgrade firmware and correct for corrupted interval data due to upgrades	Must Have		
131	MDM_08_006	The MDM shall identify tamper events, faulty meter (etc.), and trigger field investigations	Must Have		
132	MDM_09	Aggregation			
133	MDM_09_001	The MDM shall allow the aggregation process to take multiple meter devices (contributors) from multiple service accounts and to aggregate (combine) the pre-determined value (minimally: kWh, kW) for the specified tariff program	Must Have		
134	MDM_09_002	The MDM shall provide pre-built hierarchies and shall allow the creation of custom hierarchies for the aggregation	Must Have		
135	MDM_09_003	The MDM shall validate that all contributors are present before proceeding with aggregation	Must Have		
136	MDM_09_004	The MDM shall validate that all contributors have the same start and end date and time before proceeding with aggregation	Must Have		
137	MDM_09_005	The MDM shall validate that all usage data, for each contributor, has completed all primary validations before proceeding with aggregation	Must Have		
138	MDM_09_006	The MDM shall be able to calculate coincident demand or combine peak demand to determine maximum demand (aggregate demand by aggregating individually by time then finding the highest sum by time)	Must Have		
139	MDM_10	Totalization			
140	MDM_10_00	The MDM shall determine if the service contract has multiple billing meter devices (contributors)	Must Have		
141	MDM_10_01	The MDM shall validate that all contributors are present before proceeding with totalization	Must Have		

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142	MDM_10_02	The MDM shall validate that all contributors have the same start and end date and time before proceeding with totalization	Must Have		
143	MDM_10_03	The MDM shall validate that all usage data, for each contributor, has completed all individual validations before totalization is attempted	Must Have		
144	MDM_10_04	Upon completion of the totalization process, the usage data shall be summarized at an account level rather than an individual meter device (contributor) level	Must Have		
145	MDM_10_05	The MDM shall store a summarized record for the totalized account as well as the individual meter device contributor record	Must Have		
146	MDM_10_06	The MDM shall be able to calculate coincident demand (aggregate demand by aggregating individually by time then finding the highest sum by time)	Must Have		
147	MDM_11	Meter/Bill Determinants Calculation and Correction			
148	MDM_11_001	The MDM shall calculate billing determinants based on tariffs (slab based currently) for electricity meters	Must Have		
149	MDM_11_002	The MDM shall provide register reads to SAP/CIS if required (for current conventional meters or for records/validations)	Must Have		
150	MDM_11_003	The MDM shall have the ability to store multiple TOU calendars if required	Must Have		
151	MDM_11_004	The MDM shall frame billing determinants based on multiple TOU tariffs, CPP, and other future requirements	Must Have		
152	MDM_11_005	The MDM shall frame billing determinants for commercial and industrial customers based on slab tariffs, demand-based tariffs, power factor tariffs, etc.	Must Have		
153	MDM_11_006	The MDM shall frame billing determinants for net metering (future)	Must Have		
154	MDM_11_007	The MDM shall frame billing determinants for generator billing (future)	Must Have		
155	MDM_11_008	The MDM shall frame billing determinants for co-generators (future)	Must Have		
156	MDM_11_009	The MDM shall deliver billing determinants to CIS/SAP based on scheduled billing cycle (push)	Must Have		
157	MDM_11_010	The MDM shall deliver billing determinant to CIS based on ad hoc requests (pull) for move-in/move-out or other cases	Must Have		
158	MDM_11_011	The MDM shall perform billing related validations like sum check, high/low usage, zero consumption (etc.), and generate alerts/events	Must Have		
159	MDM_11_012	The MDM shall compare customer consumption to historical high/low and generate alerts in case of unexpected mismatches	Must Have		

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160	MDM_11_013	The MDM shall check for recent version of data available before completing billing exports	Must Have		
161	MDM_11_014	The MDM shall generate alerts for missing reads in case of legacy manual reading system	Must Have		
162	MDM_11_015	The MDM shall store billing cycle schedule in a calendar for the entire year	Must Have		
163	MDM_11_016	The MDM shall apply transformer loss factors if required (or any other factors)	Must Have		
164	MDM_11_017	The MDM shall allow authorized users to generate manual billing data or edit billing determinants	Must Have		
165	MDM_11_018	The MDM shall calculate meter determinants from register, time of use, and interval data based on billing cycles, allowing for consumption and demand data	Must Have		
166	MDM_11_019	The MDM shall identify the meter determinants to be generated based on the billing meter configuration that has been assigned to the service point	Must Have		
167	MDM_11_020	The MDM shall store and send (pushes out) the meter determinants to SAP billing once meter determinants are generated and validated (for on cycle and off cycle reads)	Must Have		
168	MDM_11_021	The MDM shall save all meter determinants and mark them "Sent to SAP Billing" once they have been sent to SAP for billing	Must Have		
169	MDM_11_022	The MDM shall store meter data in the repository	Must Have		
170	MDM_11_023	The MDM shall generate meter determinants for both on-cycle and off-cycle billing	Must Have		
171	MDM_11_024	The MDM shall recalculate determinants based on any change in source or edited/estimated readings	Must Have		
172	MDM_11_025	The MDM shall allow for the easy configuration of calculation rules without requirement of coding or customizations	Must Have		
173	MDM_11_026	The MDM shall allow the definition of distinct set of calculation rules for different meter or customer types	Must Have		
174	MDM_11_027	The MDM shall generate and store logs for bill determinants calculation process	Must Have		
175	MDM_11_028	Ability to define multiple Time of Use structures regardless of configurations at meter side	Must Have		
176	MDM_11_029	The MDM shall allow the definition of exceptions for the time of use for unique events/days or special customers	Must Have		
177	MDM_11_030	The MDM shall provide a user interface portal for the definition of data conditions and time lag/lead for bill determinant calculation	Must Have		
178	MDM_11_031	The MDM shall be able to support the dynamic billing. Special rates for day/time could be dynamically decided by EDCO: this dynamic billing scenario shall be highly configurable	Must Have		

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179	MDM_12	Data Import/Export			
180	MDM_12_001	The MDM shall receive manual reads that include interval data or only register data	Must Have		
181	MDM_12_002	The MDM shall receive meter readings from head end upon meter installation	Must Have		
182	MDM_12_003	The MDM shall verify the connection and data flow from the AMI meter via the head-end system	Must Have		
183	MDM_12_004	The MDM shall retry pulling of failed data every hour for regular reads and notify after multiple failed attempts fail/pass status whether the system can retrieve reading	Must Have		
184	MDM_12_005	The MDM shall generate exception reports for missing/incomplete meter data	Must Have		
185	MDM_12_006	The MDM shall identify and log meters where missing/incomplete meter data for the previous day was successfully recovered through the automated on-demand read request	Must Have		
186	MDM_12_007	The MDM shall execute a mass on demand read for all meters which are missing data within a specified timeframe	Must Have		
187	MDM_12_008	The MDM shall maintain original received raw data in a non-manipulated state	Must Have		
188	MDM_12_009	The MDM shall receive data from multiple data collection systems having different file formats and data structures including AMI, AMR, handhelds, and service order systems	Must Have		
189	MDM_12_010	The MDM shall receive, and store meter readings associated with both consumed and delivered energy (e.g. distributed generation), as well as net energy (e.g. consumed minus delivered)	Must Have		
190	MDM_12_011	The MDM shall receive, process and store all metered parameters and associated status or diagnostic data from meter data collection systems (to the extent supported by the various data collection systems)	Must Have		
191	MDM_12_012	The MDM shall receive and store quantities such as kW, kVARh, kVA, kVAh, coincident values, amps, volts, kVAR, phase angle, and kWh (with decimal positions)	Must Have		
192	MDM_12_013	The MDM shall collect data from non-meter sources, including customer premise equipment, distribution automation devices, home area networks, etc.	Must Have		
193	MDM_13	Audit			
194	MDM_13_001	The MDM shall store all version history and audit trail for data collected from meters and other devices	Must Have		
195	MDM_13_002	The MDM shall store all billing data versions (includes rebilling data based on new/estimated data or manual edits)	Must Have		



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196	MDM_13_003	The MDM shall store version history of all VEE settings with audit trail	Must Have		
197	MDM_13_004	The MDM shall have the ability to log and audit all application and database access throughout the system, capture usernames, timestamp, success/failure of transactions and transaction descriptions as appropriate	Must Have		
198	MDM_14	Reporting			
199	MDM_14_001	A pre-built set of dashboards need to be provided by the proposed solution: the tenderer is requested to specify the list of pre-built dashboards and reports	Must Have		
200	MDM_14_002	The MDM shall generate reports, including but not limited to: <ul style="list-style-type: none"> <li>• Device installation status</li> <li>• List of devices with issues in communication</li> <li>• Timeliness of meter data collection</li> <li>• Distribution of collected data (interval, scalar, ToU, ...) and trends</li> <li>• Distribution of data stored (actual, validated, estimated, edited, ...) and trends</li> <li>• Distribution of exception types and trends</li> <li>• Distribution of device events and trends</li> <li>• Distribution of VEE exceptions and exception analysis</li> </ul>	Must Have		
201	MDM_14_003	The tenderer is requested to provide the full range of the MDM reporting capabilities (vendor specific)	Must Have		
202	MDM_14_004	The tenderer is requested to provide details about all administrative reports and audit logs available in the proposed solution	Must Have		
203	MDM_14_005	The MDM shall have flexible reporting tool to generate report as per the user needs	Must Have		
204	MDM_14_006	The MDM shall provide management reports (dashboards), analytical reports, status reports, data import/export with advanced/flexible search and filter criteria	Must Have		
205	MDM_14_007	The MDM shall provide functionalities to export the data into excel sheet for the reports or any screen which is comprised of data	Must Have		
206	MDM_14_008	The MDM shall provide operational reports related to daily operations of the system and processes	Must Have		
207	MDM_14_009	The MDM shall provide analytical reports based on the meter data, flag, events, usage patterns, billing calculations, and other areas	Must Have		
208	MDM_14_010	The MDM shall have the capability for creation of custom reports	Must Have		
209	MDM_14_011	The MDM shall allow authorized users to run analytics on the data	Must Have		
210		ADVANCED REQUIREMENTS			

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
211	MDM_15	Meter Event Message Handling			
212	MDM_15_001	The MDM shall store all meter event messages in a table	Must Have		
213	MDM_15_002	The MDM shall generate reports, including but not limited to: <ul style="list-style-type: none"> <li>• Device installation status</li> <li>• List of devices with issues in communication</li> <li>• Timeliness of meter data collection</li> <li>• Distribution of collected data (interval, scalar, ToU, ...) and trends</li> <li>• Distribution of data stored (actual, validated, estimated, edited, ...) and trends</li> <li>• Distribution of exception types and trends</li> <li>• Distribution of device events and trends</li> <li>• Distribution of VEE exceptions and exception analysis</li> </ul>	Must Have		
214	MDM_15_003	The MDM shall have the ability to process certain meter event messages in a real-time manner (e.g., last gasp, over temperature, inversion, tamper)	Must Have		
215	MDM_15_004	The MDM shall have the ability to filter and send a subset of meter event messages to the recipient system (e.g., outage management system)	Must Have		
216	MDM_15_005	The MDM shall have the ability to treat each specific meter event message type or a sequence of events in a unique manner (i.e., after X occurrences of a specific event, take specific action; tamper event recorded during meter maintenance might not be considered a tamper risk)	Must Have		
217	MDM_15_006	The MDM shall have the ability to route meter event messages to other systems based on the message type	Must Have		
218	MDM_16	Rebilling			
219	MDM_16_001	The MDM shall receive requests for reversals and rebills from the billing system and shall communicate results back to the billing system	Must Have		
220	MDM_16_002	The MDM shall have the ability to recognize and process a reversal	Must Have		
221	MDM_16_003	independently from other actions (i.e., rebill)	Must Have		
222	MDM_16_004	The MDM shall have the ability to recognize and process a rebill independently from other actions (i.e., reversal)	Must Have		
223	MDM_16_005	The MDM shall have the ability to recognize and process a reverse/rebill as a paired action	Must Have		
224	MDM_16_006	The MDM shall have the ability to process reversals and/or rebills for any account that it originally billed	Must Have		
225	MDM_16_007	The MDM shall allow for bill period changes, with no change in interval level usage, which shall be fully automated without requiring manual processing	Must Have		



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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
226	MDM_16_008	The MDM shall log all manual updates to usage data including user ID, timestamp, and before and after values	Must Have		
227	MDM_16_009	The MDM shall not run the validation process on data requested by the billing system for rebilling unless the interval usage data has changed	Must Have		
228	MDM_17	Net Energy Metering and Distributed Energy			
229	MDM_17_001	The MDM shall have the ability to recognize channel configuration	Must Have		
230	MDM_17_002	The MDM shall have the ability to recognize the meter and usage type	Must Have		
231	MDM_17_003	The MDM shall have the ability to include generation in the summarization process	Must Have		
232	MDM_17_004	Based on channel configuration, the MDM shall recognize gross, net, and excess generation	Must Have		
233	MDM_17_005	The MDM shall have the ability to recognize NEM (net energy metering) eligible generation vs. non-eligible generation for summarization	Must Have		
234	MDM_18	Demand Response			
235	MDM_18_001	The MDM shall automatically process specific usage information during a demand response event based on the specific requirements of the demand response program	Must Have		
236	MDM_18_002	The MDM shall have the ability to accept interruption information from outside sources	Must Have		
237	MDM_18_003	The MDM shall be able to handle multiple demand response events in a single bill period	Must Have		
238	MDM_18_004	The MDM shall deliver to external systems (i.e., advanced distribution management system) interval data for all meters participating in demand response events at the frequency of the meter's interval for the duration of the event (e.g., 5-minute interval meter every 5 minutes during event, 15-minute interval meter every 15 minutes during event, 30-minute interval meter every 30 minutes during event, 60-minute interval meter every 60 minutes); data delivery will stop after the event(s) has concluded	Must Have		
239	MDM_18_005	The MDM shall notify the responsible system (internal or external) in case the pricing or event participation information is not received as expected.	Must Have		
240	MDM_18_006	The MDM shall have the ability to determine comparative calculations for programs as needed for dynamic pricing or other demand-based event calculations (e.g., identify three highest days, average usage during like event hours for three highest days)	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
241	MDM_18_007	The MDM shall have the ability to calculate kW reduced for a demand response event	Must Have		
242	MDM_19	Pre-Payment Services			
243	MDM_19_001	The MDM shall have the ability to deliver messages received from the pre-payment function to the customer's display device, if one is utilized (e.g., pre-payment balance in dollars, kWh, and estimated time remaining (days/hours/minutes))	Must Have		
244	MDM_19_002	The MDM shall send to upstream systems the results of messages it delivers to the customer's pre-payment device (e.g., success/failure) based on user-defined rules which may include the need to "bundle" messages and send them to CIS based on subsequent actions (i.e., once the customer has exceeded their pre-pay balance and the system proceeds with a remote disconnect, return a message to CIS with the date and time of the disconnect and a summary of all of the messages and alerts sent to the customer)	Must Have		
245	MDM_19_003	The MDM shall have the ability to deliver meter commands requested by the pre-payment function to the meter (e.g., connect, disconnect, reconnect, limit service)	Must Have		
246	MDM_19_004	The MDM shall send pre-payment command results to the billing/CIS systems (e.g., success/failure)	Must Have		
247	MDM_19_005	The MDM shall log pre-payment message and command results with the timestamp and message code/command type	Must Have		
248	MDM_19_006	The MDM shall have the ability to send raw or VEE interval data to the pre-payment function such that the pre-payment function can calculate the pre-payment balance	Must Have		
249	MDM_19_007	The MDM shall be able to receive, log and process requests and information related to the pre-payment function (e.g., connect, disconnect, demand limit request, meter tests) from other utility systems (e.g., CIS)	Must Have		
250	MDM_19_008	SYSTEM USABILITY	Must Have		
251	MDM_20	User Interface			
252	MDM_20_001	MDM GUI screen layouts, workflow, alerts, menus, etc., must be designed to mirror business processes	Must Have		
253	MDM_20_002	The business rules that support the creation of data must be integrated and	Must Have		
254	MDM_20_003	logically flow within the MDM GUI from one screen to the next	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
255	MDM_20_004	The business rules that support the updating of data must be integrated and logically flow within the MDM GUI from one screen to the next	Must Have		
256	MDM_20_005	The business rules that support the deletion of data must be integrated and logically flow within the MDM GUI from one screen to the next	Must Have		
257	MDM_20_006	The MDM GUI access will be based on user role and profile, and will control view/update access to MDM data as well as access to functions and commands (e.g., ping meter, request on-demand read, issue on/off commands, retry commands, etc.)	Must Have		
258	MDM_20_007	The MDM shall display engineering units and unit type (e.g., kWh) whenever interval data is displayed	Must Have		
259	MDM_20_008	The MDM shall allow authorized users to customize their screen views and save customized settings for future sessions	Must Have		
260	MDM_20_009	The MDM users shall be identified via a unique ID and support single sign-on	Must Have		
261	MDM_20_010	The MDM GUI shall present a similar look and feel of its tools such as help, notes, hot keys, graphs, and reports	Must Have		
262	MDM_20_011	The MDM GUI shall be able to perform user input validation and reasonableness checking based on industry standards and user-defined rules (e.g., input sanitization, filtering, canonicalization, through use of regex, character escaping schemes)	Must Have		
263	MDM_20_012	The MDM GUI shall prompt the user when exiting if edits have not been saved	Must Have		
264	MDM_20_013	The MDM GUI shall warn the user prior deleting any information from the system	Must Have		
265	MDM_20_014	The MDM GUI shall provide a drop-down selection list for specific fields	Must Have		
266	MDM_20_015	The MDM GUI shall be able to be configured to permit the operator to navigate an electrical connectivity hierarchy (e.g., substation by name/ID, transformer by name/ID, feeder by name/ID, meter by ID, etc.)	Must Have		
267		TECHNOLOGY REQUIREMENTS			
268	MDM_21	General Requirements			
269	MDM_21_001	The MDM shall provide web based or client-server access and shall not have a remote desktop console access	Must Have		
270	MDM_21_002	The MDM shall provide server and application-level monitoring tools	Must Have		
271	MDM_21_003	The MDM database setup shall support high-availability and clustering	Must Have		

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272	MDM_21_004	All production and quality servers shall have high-availability system and quality and production landscape shall have disaster recovery (DR). DR Setup shall have continuous data protection with zero downtime and data loss	Must Have		
273	MDM_21_005	The tenderer shall provide load balancer mechanism and provide load balance appliances details	Must Have		
274	MDM_21_006	The tenderer shall provide the list of pre-requisite third-party mandatory software licenses which has to be purchased running the proposed MDM	Must Have		
275	MDM_22	Data Management			
276	MDM_22_001	The MDM shall access data through a data object rather than directly from the database	Must Have		
277	MDM_22_002	The MDM shall include a data access utility that can be used to directly manage the data (business) object	Must Have		
278	MDM_22_003	The MDM shall include built-in data import/export utilities	Must Have		
279	MDM_22_004	The MDM shall support extract, transform, load capabilities directly or via close integration with other common extract, transform, load tools	Must Have		
280	MDM_22_005	The MDM shall allow for designating levels of confidentiality to be associated with data fields such that data users can readily comply with EDCO data labelling and handling requirements	Must Have		
281	MDM_23	Database Architecture			
282	MDM_23_001	The MDM database shall be Open Database Connectivity (ODBC) compliant	Must Have		
283	MDM_23_002	The MDM database shall be Java Database Connectivity (JDBC) compliant	Must Have		
284	MDM_23_003	The MDM database shall be Object Linking and Embedding, Database (OLEDB) compliant	Must Have		
285	MDM_23_004	The MDM database shall be able to accommodate and respond properly to standard SQL queries run against the database	Must Have		
286	MDM_24	Componentization and Service Oriented Architecture (SOA) Support			
287	MDM_24_001	The MDM shall employ the use of application development tiers to separate major functions or layers; at a minimum, three tiers (database, application, client) shall be supported	Must Have		
288	MDM_24_002	The MDM data shall be stored in a separate tier distinct from other aspects of the application architecture	Must Have		
289	MDM_24_003	Beyond the separation of data from the application, the MDM shall specifically avoid storing (other than short-term caching) of any 'content' information on web servers	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
290	MDM_24_004	The MDM shall support the segregation of reporting functionality to allow the use of mainstream external tools for generating reports from the data	Must Have		
291	MDM_24_005	The MDM shall employ substantial to full separation of the presentation layer from the application layer	Must Have		
292	MDM_24_006	The MDM shall allow alternative presentation such as fat vs. thin client without affecting fundamental system functionality	Must Have		
293	MDM_24_007	Individual system functions within the MDM shall be modular, thereby providing individual business functions in a componentized fashion	Must Have		
294	MDM_24_008	The MDM program modules shall allow the individual modules to be called from one another or from a main program reusing functionality across the system	Must Have		
295	MDM_24_009	The MDM shall allow business functions/processes to be defined in Web Services Description Language (WSDL) or Web Application Description Language (WADL)	Must Have		
296	MDM_24_010	When applicable, the MDM shall allow workflow attributes to be described in Web Services Flow Language (WSFL)	Must Have		
297	MDM_24_011	The MDM shall allow for important system functions to be called via SOAP (Simple Object Access Protocol) or REST (Representational State Transfer) protocol	Must Have		
298	MDM_25	Development Environment			
299	MDM_25_001	The MDM shall allow development or maintenance work to be performed using a mainstream Integrated Development Environment (IDE)	Must Have		
300	MDM_25_002	The MDM shall provide an organized, programmatic interface or software development kit (SDK) to perform any system configuration or to access and modify system information or accounts	Must Have		
301	MDM_25_003	Any user configurable or exposed development language within the MDM used for customization and maintenance shall be based on one of the following: .Net, Java, or Advanced Business Application Programming (ABAP)	Must Have		
302	MDM_25_004	The MDM shall be based on a modern development technology framework such as .Net, ASP.Net, Java EE, or Java Server pages (JSP)	Must Have		
303	MDM_25_005	The MDM shall allow for the preservation of prior customizations during product upgrades	Must Have		
304	MDM_26	System Configurability			
305	MDM_26_001	The MDM shall support distributed processing across multiple network zones and data centers, with application and database processes distributed on	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
		multiple servers with dynamic resource allocation and automatic failover and load balancing as appropriate			
306	MDM_26_002	The MDM shall support enhancements and upgrades in a modular fashion	Must Have		
307	MDM_26_003	The MDM shall allow EDCO to set up or change data validation and estimation rules, user screens, and alarm/event notifications without modifying source program code and without any proprietary language skills	Must Have		
308	MDM_26_004	The MDM shall include a toolset to make configuration changes to reflect new business rules for data validation and estimation	Must Have		
309	MDM_26_005	The MDM shall include a toolset to change format, content or functionality of user screens and online help contents	Must Have		
310	MDM_26_006	The MDM shall include a toolset to group, prioritize, filter, and send the system generated alarms and events to predetermined email addresses, text pagers, cellular text messages, and/or phone numbers	Must Have		
311	MDM_27	Integration Capabilities			
312	MDM_27_001	The tenderer is requested to provide the full range of the pre-built integration adapters available in the proposed MDM solution	Must Have		
313	MDM_27_002	The tenderer is requested to provide the list of HESs and billing solutions it has integrated with in previous projects	Must Have		
314	MDM_27_003	All user accessible data within the MDM shall be capable of being accessed via documented APIs (with the preferred method of access being a data access model)	Must Have		
315	MDM_27_004	The MDM shall support open standards and CIM 61968 based integration with CIS and other enterprise systems	Must Have		
316	MDM_27_005	The MDM shall provide web services, application programming interfaces (API), and/or adaptors to support system integrations with other enterprise information systems	Must Have		
317	MDM_27_006	The MDM shall support an enterprise integration strategy using Service Oriented Architecture/Enterprise Service Bus	Must Have		
318	MDM_27_007	The propose integration with the SAP billing system shall follow asynchronous processes and shall synchronize with all SAP inbound & outbound services	Must Have		
319	MDM_27_008	The MDM shall consume SAP WSDLs for both Inbound and Outbound Services	Must Have		



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320	MDM_27_009	The MDM shall be compatible to use SAP services with minimum customization	Must Have		
321	MDM_27_010	The MDM shall use HTTPS (with basic authentication or client certificate) for communication with SAP system	Must Have		
322	MDM_27_011	The MDM shall allow the configuration of the number of retries and delays to reprocess the request if any failure happens	Must Have		
323	MDM_27_012	The MDM shall provide a proper queuing mechanism to be in place. A time stamp validation shall exist in the MDM to process or cancel the request; the requests shall not be reprocessed if the request failed or got cancelled as per time stamp validation	Must Have		
324	MDM_27_013	The tenderer shall provide the detailed flow chart and actions to be performed in all the stages from request creation to success/fail request and archiving	Must Have		
325	MDM_27_014	The tenderer shall provide details about the protocols used for integration like SOAP, FTP, etc.	Must Have		
326	MDM_27_015	The MDM shall provide various error handling techniques for errors that may appear during the integration	Must Have		
327	MDM_27_016	The MDM shall support all the SAP data types	Must Have		
328	MDM_27_017	The tenderer must detail its approach for disaster recovery plan to communicate with primary/high-availability MDM in case of system failure	Must Have		
329	MDM_27_018	MDM shall support (for all the services) individual and bulk requests based on individual/bulk requests from the requested integrated systems such as SAP (or others in future)	Must Have		
330	MDM_27_019	The MDM shall allow business functions/processes to be defined in WSDL and/or WADL as per requirements during design stage	Must Have		
331	MDM_27_020	The MDM shall call important system functions via SOAP and/or R-EST protocol as per requirements which will be finalized during design stage	Must Have		
332	MDM_27_021	The MDM shall allow the user-accessible data in the system to be accessed via documented APIs as per the requirements which will be finalized during design stage	Must Have		
333	MDM_27_022	The MDM shall support XML and/or JSON messages to present data or to transfer information in and out of the system as per the requirements which will be finalized during design stage	Must Have		
334	MDM_27_023	The MDM shall support integration flexibility at the web services layer such as allowing XML/WSDL/WADL calls or the interactive use of portlets as per the requirements which will be finalized during design stage	Must Have		

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335	MDM_27_024	The MDM shall support interoperability with MS Exchange for e-mail functions which will be finalized during design stage	Must Have		
336	MDM_27_025	The MDM shall support standard interfaces, adaptors and file formats for data exchanges which will be finalized during design stage	Must Have		
337	MDM_27_026	The MDM shall allow the configuration and modification of data fields used in data exchanges which will be finalized during design stage	Must Have		
338	MDM_27_027	The MDM shall support an enterprise integration strategy using Service Oriented Architecture (SOA)	Must Have		
339	MDM_27_028	The MDM shall consume and expose web services for both inbound and outbound services and compatible to use WSDL and/or WADL file	Must Have		
340	MDM_27_029	The MDM shall log all service requests and publishing between MDM and other systems/applications	Must Have		
341	MDM_27_030	The MDM shall allow the configuration of several retries and delays to reprocess any request failures	Must Have		
342	MDM_27_031	The MDM shall provide time stamp validation to process or cancel message requests	Must Have		
343	MDM_27_032	The MDM shall prevent the data reprocessing if the request failed or cancelled as per time stamp validation	Must Have		
344	MDM_27_033	The MDM shall provide a web service client interface for all outbound alerts to send alerts through an enterprise message brokering system (service)	Must Have		
345	MDM_27_034	The MDM shall provide support for open, documented, and upgradeable industry standards for message structures	Must Have		
346	MDM_27_035	The MDM shall provide support for standard messaging structures to ensure request, acknowledgement, and response	Must Have		
347	MDM_27_036	The MDM shall develop message structures, protocols, and common information models that adhere to the industry standard	Must Have		
348	MDM_27_037	The MDM shall synchronize meter master data with various HES systems in EDCO	Must Have		
349	MDM_27_038	The MDM shall synchronize reading frequency and schedule with various HES systems in EDCO	Must Have		
350	MDM_27_039	The MDM shall send on demand read request and other meter commands to different HES systems in EDCO	Must Have		
351	MDM_27_040	The MDM shall receive and process meter data, events, and alarms from various HES systems in EDCO	Must Have		
352	MDM_27_041	The MDM shall provide a user interface portal and logs to track any exception in master data sync, meter commands, or meter data processing between MDM and HESs	Must Have		



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353	MDM_27_042	The MDM shall have a configuration panel to select the frequency, registers, timeline for the data import from HES systems; a log of all the configuration changes to be available as part of audit trail and reporting	Must Have		
354	MDM_27_043	The MDM shall receive ad-hoc meter data requests from head-end for specific date and time range for meter groups	Must Have		
355	MDM_27_044	The MDM shall integrate with meter data analytics system and send data based on a predefined schedule	Must Have		
356	MDM_27_045	The MDM shall read meters periodically (as per predefined billing cycle) and on demand	Must Have		
357	MDM_27_046	The MDM shall receive messages from customer portal either directly or via SAP	Must Have		
358	MDM_27_047	The MDM shall determine whether data for the requested period is in MDM or must be retrieved from the meter	Must Have		
359	MDM_27_048	The MDM shall store meter billing configuration profiles	Must Have		
360	MDM_27_049	The MDM shall issue an on-demand read request to retrieve missing/incomplete data for any period(s) present in the meter (i.e., at least [6 months]), for all meters with missing/incomplete data	Must Have		
361	MDM_27_050	The MDM shall collate consumption data into relevant billing cycles	Must Have		
362	MDM_27_051	The MDM shall support billing reading of at least 2 to 4 times a day	Must Have		
363	MDM_27_052	The MDM shall track the source of read information and issue on-demand reads	Must Have		
364	MDM_27_053	The MDM shall log the request's related information (e.g., time received, customer ID, etc.)	Must Have		
365	MDM_27_054	The MDM shall receive and send messages from customer portal either directly or via SAP	Must Have		
366	MDM_27_055	The MDM shall send data to customer portal near real-time	Must Have		
367	MDM_27_056	The MDM shall convert data into a compatible format to EDCO systems, which can be sorted and organized	Must Have		
368	MDM_27_057	The MDM shall uniquely identify each meter and track multiple meters read requests	Must Have		
369	MDM_27_058	The MDM shall track the source of read information and issue on-demand reads	Must Have		
370	MDM_27_059	The MDM shall have version control for the stored data	Must Have		
371	MDM_27_060	The MDM shall inform the subscribing (integrated) systems about any change in previously shared bill determinants	Must Have		
372	MDM_27_061	The MDM shall track/log the end-to-end communication for all requests and responses	Must Have		

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373	MDM_27_062	The MDM shall provide user interface portal to track request and response and to present proper messages for any error case	Must Have		
374	MDM_27_063	The MDM shall be able to update master data as and when change is implemented at the source system	Must Have		
375	MDM_28	Network/Communication Architecture			
376	MDM_28_001	The MDM shall support TCP/IP for network transport	Must Have		
377	MDM_28_002	The MDM shall support HTTP and HTTPS web data transport protocol	Must Have		
378	MDM_29	Scalability and Performance			
379	MDM_29_001	The MDM shall be capable of being scaled vertically by adding CPU power and/or memory	Must Have		
380	MDM_29_002	The MDM shall be capable of being scaled horizontally by adding servers	Must Have		
381	MDM_29_003	The MDM shall be "cluster aware" at the application layer and can fully leverage server-based clustering techniques	Must Have		
382	MDM_29_004	The MDM shall be capable of being recreated and brought back to prior state through manual restoration processes while also using system logs or other outside messaging/broker services to understand which transactions may have failed	Must Have		
383	MDM_29_005	The MDM shall support semi-automated failover protection that allows	Must Have		
384	MDM_29_006	a replacement platform to be brought up with an audit log of failed transactions	Must Have		
385	MDM_29_007	The MDM shall support high availability failover protection that provides for unattended with complete transaction recovery and seamless re-processing of failed transactions in progress	Must Have		
386	MDM_29_008	The MDM shall support separate environments (such as sandbox, development, QA, production environments, etc.)	Must Have		
387	MDM_29_009	The MDM shall support EDCO's entire electricity meter population, plus an annual growth of around 4%	Must Have		
388	MDM_29_010	The MDM shall store minimum 3 years (or a period specified by EDCO) of all meter read data including register reads corrected and uncorrected electricity consumption and interval data	Must Have		
389	MDM_29_011	The MDM shall be scalable to support interval reads from all EDCO's electricity meters in addition to the cumulative consumption data	Must Have		
390	MDM_29_012	The MDM shall support the number of users as suggested by EDCO to access the system, plus 50% capacity for growth and contingencies	Must Have		

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391	MDM_29_013	The proposed system shall support the scalability through multiple locations with high-availability and disaster recovery	Must Have		
392	MDM_30	Server Platforms			
393	MDM_30_001	The web related MDM services shall operate using the web server	Must Have		
394	MDM_30_002	The MDM shall run on 64 bit and latest Operating System version for Windows Server, REDHAT/ ORACLE LINUX, or AIX	Must Have		
395	MDM_30_003	The MDM shall have the capability to monitor and generate notifications and alarms for individual processes, group of processes, and work or data flows within the system to ensure reliable operation	Must Have		
396	MDM_30_004	The MDM shall expose the status of internal processes to external process monitoring systems supported by EDCO	Must Have		
397	MDM_31	System Operation and Management			
398	MDM_31_001	The MDM shall be capable of effective operation in a virtual server environment	Must Have		
399	MDM_31_002	The tenderer shall mention whether there is any limitation of the proposed MDM to run with specific hardware solutions or architectures	Must Have		
400	MDM_31_003	The MDM shall be capable of effective operation in concert with on-line data backup procedures including awareness of open transactions and files	Must Have		
401	MDM_31_004	The MDM shall support database and application backup using stored procedures and other tools for the production environment	Must Have		
402	MDM_31_005	The backup shall include all versions of the database, configuration data, register data, and event data. The backup shall be performed without any interruption of service	Must Have		
403	MDM_31_006	The MDM shall support local storage, network attached storage, and storage area networks	Must Have		
404	MDM_31_007	The MDM shall have adequate online data storage capacity to ultimately support the system scalability	Must Have		
405	MDM_31_008	The MDM shall support automated data archiving, purging, and	Must Have		
406	MDM_31_009	restoration	Must Have		
407	MDM_31_010	The solution shall support the latest database versions such as Oracle 19c or MS-SQL 2019 or later	Must Have		
408	MDM_32	Testing Tools			
409	MDM_32_001	The MDM shall allow for the use of a testing tool for test case development, automation, and tie to defect management software. Also, this shall include performance testing capabilities	Must Have		

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410	MDM_32_002	The MDM shall allow for the use of automated change management	Must Have		
411	MDM_32_003	The MDM shall provide for easy use of log files to track events during testing or debugging operations	Must Have		
412	MDM_32_004	The MDM (under its proposed licensing provisions) shall be configured and sized to support multiple environments (including development, staging, and training) that fully emulate the production environment including connectivity to other key systems	Must Have		
413	MDM_32_005	The MDM (under its proposed licensing provisions) shall allow for the hosting of development, staging, or training versions/implementations of the system within a virtual server environment	Must Have		
414	MDM_33	User Interface (UI) Standards – Cross Platform			
415	MDM_33_001	Browser based components of the MDM shall work with EDCO adopted web browsers which are Microsoft Edge and Google Chrome	Must Have		
416	MDM_33_002	Browser based components of the MDM exposed to public facing internet shall work with MS Explorer 11 and higher, Firefox 89 and higher, and Chrome 91 and higher to be inclusive of all external users	Must Have		
417	MDM_34	Web Content Management Architecture			
418	MDM_34_001	The MDM shall either provide or integrate with an application to add, edit and remove data that is presented and collected on-line via the web application	Must Have		
419	MDM_34_002	The MDM shall either provide or integrate with an application to manage and update web content. Web content includes images, style sheets, multimedia files, etc. that typically do not come from the database but rather from other file systems. Applications involved in presenting such content on the web shall have tools for organizing, versioning, changing and updating content	Must Have		
420		SECURITY REQUIREMENTS			
421	MDM_35	User Access Management			
422	MDM_35_001	The MDM shall provide or allow for user authentication and identification	Must Have		
423	MDM_35_002	The MDM shall be capable of interfacing with Integrated Windows Authentication (IWA) to provide for user authentication and identification for any web-based components	Must Have		
424	MDM_35_003	The MDM shall support standard LDAP (Lightweight Directory Access Protocol) services	Must Have		
425	MDM_35_004	The MDM shall be capable of enforcing strong password handling for all external customer users and for EDCO's users (employees or contractors), and the ability to	Must Have		

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		enforce different rules based on account type (e.g., internal, customer, supervisor, administrator)			
426	MDM_35_005	The MDM shall support Single Sign-On (SSO)	Must Have		
427	MDM_35_006	The MDM shall be capable of removal of all generic accounts and default logins	Must Have		
428	MDM_35_007	The MDM shall provide multiple levels of access control based on user profiles	Must Have		
429	MDM_35_008	The MDM shall provide task or role-based access control tied to user profiles and group definitions	Must Have		
430	MDM_35_009	The MDM shall provide task or role-based data import/export control tied to user profiles and group definitions	Must Have		
431	MDM_35_010	The MDM shall support both Active Directory and MDM systemdefined user authentication; the MDM shall allow for single sign-on using	Must Have		
432	MDM_35_011	Active Directory, which can then be linked to user's EDCO ID or account	Must Have		
433	MDM_35_012	The MDM shall have the capability to authenticate against a hybrid solution that shall combine authentication either locally or using single sign-on; EDCO uses Microsoft Windows Active Directory	Must Have		
434	MDM_35_013	The MDM shall provide role-based security function, where multiple users can be grouped for a specific role within the system. The change in the privileges of any role will be dynamically reflected to the users within the particular role	Must Have		
435	MDM_35_014	The MDM shall have the capability to redefine the role-based security for a user through the system administrator	Must Have		
436	MDM_35_015	The association between a role and its users shall be done at the directory level and the association shall be maintained within the MDM application and stored in the MDM database	Must Have		
437	MDM_35_016	The MDM shall have the capability to define access rules (such as particular time of the day, weekend, holiday, etc.) for distinct roles	Must Have		
438	MDM_35_017	The role-based security shall have strict access controls (definition and management of rules) for MDM functionality use in the MDM system. The strict control requires that the list of personnel responsible for changing the parameters of the access is limited, and that there exists an access control reinforced to be able to modify the list, and the modifications are logged and audited. Typically, primary and backup system	Must Have		

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		administrators are designated to manage the security rules for all the users of the systems. Security roles shall be assigned by group and workgroup, not individual users.			
439	MDM_35_018	The MDM shall store and track the login and logout entry in the system	Must Have		
440	MDM_35_019	The MDM shall have the capability to allow the creation of ad hoc reports against the tracking data, which can be used for internal audits or in case of unauthorized entry or breaches into the system	Must Have		
441	MDM_35_020	The MDM authorization system shall have the capability to re-validate authentication prior to any sensitive operations such as meter reconnect/disconnect commands to the AMI network	Must Have		
442	MDM_35_021	In case of specific period of inactivity (absence of exchange of information in a defined time) of a user, the MDM authorization system shall automatically log the user out of the system, and make it mandatory to require new identification (re-login)	Must Have		
443	MDM_35_022	The logging process on the MDM shall be protected, where no additional information, besides the user ID and password, is presented to the user	Must Have		
444	MDM_35_023	The passwords stored in the system shall be encrypted	Must Have		
445	MDM_35_024	The MDM shall have strong authentication (crypto logical process) in place for authenticating the administrators or owners of sensitive information	Must Have		
446	MDM_35_025	The MDM shall not be susceptible to be breached due to visual observation or listening of network, and not breakable by special tools (password cracking tools)	Must Have		
447	MDM_35_026	The MDM shall not only strictly control the access to the system and roles of each user, but also strictly control the data each user can access. Users except for database administrators and system administrators shall have no direct access to the database or system directories.	Must Have		
448	MDM_35_027	The MDM shall maintain the accuracy, authenticity, and integrity of the data stored in the system. The MDM system shall be capable of maintain the security of sessions	Must Have		



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449	MDM_35_028	The MDM shall allow the user to change his/her password. The system shall disable the account after 45 days (this number shall be configurable in the MDM) on non-utilization. The system must request for new password after 90 days (this number shall be configurable in the MDM) and prompt user for change of password in advance	Must Have		
450	MDM_36	Security Monitoring			
451	MDM_36_001	The MDM shall allow the synchronization of the network time protocol (NTP) clock	Must Have		
452	MDM_36_002	<p>The MDM shall log the security events and other application transactions to a centralized allocated directory in the MDM application or database servers. At least the following activities shall be logged:</p> <ul style="list-style-type: none"> <li>• Access to the critical MDM components</li> <li>• Access to the confidential information</li> <li>• Access to the sensitive resources (customer information files, databases, etc.)</li> <li>• Modifications of parameters and definitions that manage login rules and usernames.</li> <li>• The sensitive system calls (utility sensitive information requiring privileged rights, access to the security files, security parameters administrations, etc.)</li> </ul>	Must Have		
453	MDM_36_003	<p>The MDM shall cover essential components of event logs that record all activity in the system. The MDM shall record all actions taken by the MDM, as well as all users and external systems. Logs shall include:</p> <ul style="list-style-type: none"> <li>• Audit Log: MDM shall provide a way to view changes that have been made to configuration data in the system over a selected period. This identifies which users in the system changed data and the time at which they changed it</li> <li>• Task Log: MDM shall log all task activity in the database. EDCO shall be able to view log data for individual tasks or by log</li> <li>• Edit Log: MDM shall maintain an edit log for all edited data, including start and end date of each edit operation, edit estimation mode that was applied, edit code, username of the editor, user comments, and additional channels subject to the same edit</li> <li>• Validation Log: MDM shall store the results of each validation rule or validation set</li> <li>• Communications Log: MDM shall store communications data from meter cross-examination sessions</li> </ul>	Must Have		

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454	MDM_36_004	The MDM shall maintain a comprehensive audit trail of all users and external system activity. The MDM shall have the ability to provide this information as a standard operational report. The MDM shall have the ability to restrict the viewing, printing, and moving of the security logs based on the MDM role-based security permissions	Must Have		
455	MDM_36_005	The MDM shall have the capability to audit not only changes to master data (such as meters) but also changes to system settings and configurations. Among these the MDM shall have the capability to monitor the disabling of audit logging settings. If the user disables logging, an audit entry shall be generated in the database which can be reviewed by a system administrator	Must Have		
456	MDM_36_006	Any disabling of the audit functionality shall generate an entry in the audit log table. The monitoring tools can monitor the logs for any security event and alert notifications shall be set up for any anomalies	Must Have		
457	MDM_37	Software and Services			
458	MDM_37_001	The MDM shall allow for all software components that are not required for the operation and/or maintenance of the MDM to be removed. If removal is not technically feasible, then software features that are not required for the operation and/or maintenance of the MDM shall be capable of being disabled	Must Have		
459	MDM_37_002	The MDM shall allow for services and ports not required for operation of the system to be removed and disabled	Must Have		
460	MDM_37_003	The MDM shall provide the ability to view and report all versions for software, configurations, firmware, scripts, macros and enabled ports and services	Must Have		
461	MDM_38	Connection and Data Transport Security			
462	MDM_38_001	The MDM shall support the Transport Layer Security (TLS) protocol for internet session security for web-based components	Must Have		
463	MDM_38_002	The MDM shall support large file transfer utilizing a SSH File Transfer Protocol (SFTP) server	Must Have		
464	MDM_38_003	The MDM shall enforce security policies from the critical side when inter process communication is initiated from a less privileged application	Must Have		
465	MDM_39	Encryption			
466	MDM_39_001	The MDM shall support secure transmission (encryption) of all nonpublic data	Must Have		
467	MDM_39_002	The MDM shall provide encryption mechanism for the cached data and elimination of the cached data when are no longer needed to assure that residual data is not	Must Have		



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		left in caches or on local hard drives when any confidential data is processed on the system			
468	MDM_39_003	The MDM shall provide encryption mechanism for the cached data and elimination of the cached data when are no longer needed to assure that residual data is not left in caches or on local hard drives when any confidential data is processed on the system	Must Have		
469	MDM_39_004	The MDM shall allow for confidential and restricted data to be encrypted	Must Have		
470	MDM_39_005	The MDM shall store PINS and passwords hashed and never in clear text	Must Have		
471	MDM_39_006	The MDM shall use robust encryption mechanisms for the access to the consoles of administration and/or operations. In the case of Active Directory, the user and authentication type shall be stored in the MDM database, while the credentials shall be stored in Active Directory. In the case of MDM based authentication, the username and password shall be stored in MDM, and the passwords shall be one-way hashed and encrypted. MDM users shall only be able to access the functions and screens that are allowed for the role that they have been assigned	Must Have		
472	MDM_39_007	The encryption mechanism shall protect against any violation. Majority of the interaction in the MDM shall be done via web services. These web services shall be configured to enable transport or message level encryptions to prevent tampering of messages while in transit. These mechanisms shall be based on standard security technologies platform such as Microsoft and shall be configured as part of the deployment of the MDM. Any passwords used in the product shall never be exposed in clear and shall be masked in the user interface	Must Have		
473	MDM_39_008	The MDM shall immediately detect the disabling or the by-pass of the encryption mechanism. Once configured, the encryption mechanism for API interaction with the MDM shall only be allowed to be disabled via the system settings interface. This interface shall be isolated using the authorization mechanism so that only system administrators can access those settings. The changing of those settings shall be logged in the audit tables.	Must Have		
474	MDM_40	Session Management for Web-based Application			
475	MDM_40_001	The MDM shall provide automated session terminations after configurable periods of inactivity	Must Have		

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476	MDM_40_002	The MDM shall allow the configuration of limits on the number of concurrent sessions allowed for any user	Must Have		
477	MDM_40_003	The MDM shall lock out users after a configurable number of unsuccessful log-on attempts	Must Have		
478	MDM_40_004	The MDM shall support a session logout that will terminate the user session with a configurable session timeout value	Must Have		
479	MDM_40_005	The MDM shall support a session kill on browser freezing and browser closing	Must Have		
480	MDM_40_006	The MDM shall support encryption and random generation of the session ID	Must Have		
481	MDM_40_007	The MDM shall not allow more than one active session for the same user from multiple machines. However, it shall allow multiple sessions for the same user from the same machine	Must Have		
482	MDM_41	Audit, Alert and Reporting Safeguards			
483	MDM_41_001	The MDM shall be able to report real time on all active users outlining all their permissions and roles	Must Have		
484	MDM_41_002	The MDM shall support tracking of new access, modification of access and security permissions for a configurable period	Must Have		
485	MDM_41_003	The MDM shall provide customizable audit logs and produce customizable reports detailing user and administrator activities and security events. Event logging must be enabled	Must Have		
486	MDM_41_004	The MDM shall be capable of alerting each user as to the time and location of their previous log on(s)	Must Have		
487	MDM_42	System Integrity Assurance			
488	MDM_42_001	The MDM shall employ methods that minimize the impact and risks from 'Denial-of-Service' attacks (e.g., load balancing, packet filtering, connection throttling)	Must Have		
489	MDM_42_002	The MDM shall be compatible with and interoperate with host-based intrusion detection system (HIDS) and network-based intrusion detection systems (NIDS)	Must Have		
490	MDM_42_003	The tenderer shall inform EDCO whether there is any limitation for the proposed MDM to work with any of the anti-virus and anti-malware tools available in the market; if so, the vendor shall detail the list of these tools with which the proposed MDM is not compatible with	Must Have		
491	MDM_42_004	The MDM shall be able to provide heartbeat signals to other systems such as outage management solutions	Must Have		
492	MDM_43	Privacy Compliance			
493	MDM_43_001	The MDM shall allow for the purging of individual customers' data after a period as defined by EDCO	Must Have		

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No.	Req. No.	Requirement Description	Must Have / Nice to Have	S, W, N	Comply (Yes / No)
494	MDM_43_002	The MDM shall allow for the archiving of individual customers' data after a period as defined by EDCO	Must Have		
495	MDM_44	Security Compliance			
496	MDM_44_001	The MDM shall be compliant with existing EDCO's data backup systems	Must Have		
497	MDM_44_002	The MDM shall allow for the protection of audit logs via back-up and provisions to prevent and detect tampering with logs	Must Have		
498	MDM_44_003	If the MDM solution being proposed is hosted at external sites managed by the vendor or vendor's agent, the vendor must ensure proper ongoing backup and storage of electronic data records	Must Have		
499	MDM_44_004	The MDM shall provide a method to remotely update encryption certificates on a EDCO defined and configurable frequency without disrupting normal system operation	Must Have		
500	MDM_44_005	The MDM shall provide a method of updating the encryption method	Must Have		
501	MDM_44_006	(algorithm/primitive) throughout the service life of the MDM	Must Have		
502	MDM_44_007	The vendor shall provide documentation of third-party vulnerability assessments of their development, test and product delivery environments and systems	Must Have		
503	MDM_44_008	The tenderer shall inform EDCO whether there is any limitation for the proposed MDM to work with any of the mobile device management suites available in the market; if so, the vendor shall detail the list of these suites with which the proposed MDM is not compatible with.	Must Have		

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