



THE HASHEMITE KINGDOM OF JORDAN
ELECTRICITY DISTRIBUTION COMPANY (EDCO)

Tender No.(30/2025)

توريد ملحقات كوابل هوائية مجدولة

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

(30/2025)

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) (9/ 4 /2025)**.

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) (9/4 /2025)**.

- **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. (30/2025)

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 prices 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 pieces 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, its 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. (30/2025))**.
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 (35) JD will be charged for each set comprising one copy of the Tender Documents.

TENDER AGREEMENT SUMMARY

Tender No. (30/2025)

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. (30/2025)

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. (30/2025)

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. (30/2025)

**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)

TECHNICAL SPECIFICATIONS

1. General

Cables should be 600/1000 volts self-supported twisted overhead insulated. The cables will be used in rural areas, hot areas, and in places which subjected to severe wind and ice loading and they will substitute the existing bare aluminum overhead lines due to their improper performance in snowstorms.

The cables should be supported by galvanized tubular steel poles (3) or (4) inches top diameter, or concrete poles (155) mm top diameter. Normally the (3) inches steel poles are located at intermediate positions, while the (4) inches at angles, tension and terminal positions.

The supplier must include in his offer complete calculations to prove the acceptable performance of the offered cables in such conditions.

2. Twisted Cables

2.1 Overhead LV Cables

Cables must have (5) cores, three for phases, one for street lighting and remaining one for neutral/earth, (3x120+25+70), (3x95+25+70) and (3x50+25+35) mm² and cables have (3) cores, one for phase, one for neutral, and one for street lighting, (2x95+25) mm², all cores should be insulated.

Conductors for phases must be hard drawn aluminum round compacted stranded with size of (120, 95&50) mm² while street lighting conductor is 25 mm². The neutral conductor must be of aluminum alloy (95,70&35) mm². All cores are black (XLPE) weather and Ultra-Violet (UV) resistance insulated, in accordance to NFC Standard or equivalent.

Tension charts for the required types of cables should be submitted with the offer to cover the following design conditions:-

	<u>Cold area</u>	<u>Hot area</u>
Min. ambient temp.....Deg C	-10	0
Every day temp.....Deg C	20	25
Max. ambient temp.....Deg C	40	50
Wind Loading (over ice)..... (N/m2)	700	700
Ice loading (radial thickness).... (mm)	10	0
Factor of safety at min. temp.	2.5	2.5
Factor of safety at every day temp.	5	5

The main dimensions of the low voltage twisted cable 0.6 / 1 kV
(3*120+25+70)mm², are as follows:

-Main phase conductor	= 120 mm²
-Construction	= 19 wires- hard drawn aluminum round compacted stranded
-Insulation thickness	= 1.8 mm-XLPE
-Lighting conductor construction	= 25 mm²
-Construction	= 7 wires - hard drawn aluminum round compacted stranded
-Insulation thickness	= 1.4 mm - XLPE
-Neutral conductor construction	= 70 mm² AL Alloy
-Construction	= 7 wires - Non compacted
- Insulation thickness	= 1.6 mm XLPE
-Approximate Nominal over all diameter of cable	= 45 mm
-Nominal weight of cable per meter	=1.65 kg

Main phase and lighting conductors are twisted around neutral; breaking load:

120 mm ² phase conductor aluminum	= 14 kN
25mm ² lighting conductor aluminum	= 2.5kN
70 mm ² neutral aluminum alloy	=20.6kN

Max. D.C. resistance at 20^o C:

120 mm ² phase condominium	=0.253 ohm/km
25 mm ² lighting conductor aluminum	=1.2 ohm/km
70 mm ² neutral aluminum alloy	=0.493 ohm/km

The main dimensions of the low voltage twisted cable 0.6 / 1 kV
(3*95+25+70)mm², are as follows:

-Main phase conductor	= 95 mm²
-Construction	= 19 wires- hard drawn aluminum round compacted stranded
-Insulation thickness	= 1.8 mm-XLPE
-Lighting conductor construction	= 25 mm²
-Construction	= 7 wires – hard drawn aluminum round compacted stranded

- Insulation thickness = 1.4 mm - XLPE
- Neutral conductor construction** = **70 mm²** AL Alloy
- Construction = 7- Non compacted
- Insulation thickness = 1.6 mm XLPE
- Approximate Nominal over all diameter of cable = 45 mm
- Nominal weight of cable per meter =1.357 kg

Main phase and lighting conductors are twisted around neutral; breaking load:

95 mm² phase conductor aluminum = 14 kN
 25mm² lighting conductor aluminum = 2.5kN
 70 mm² neutral aluminum alloy =20.6kN

Max. D.C. resistance at 20⁰ C:

95 mm² phase condominium =.032 ohm/km
 25 mm² lighting conductor aluminum =1.2 ohm/km
 70 mm² neutral aluminum alloy =0.493 ohm/km

The main dimensions of the low voltage twisted cable 0.6 / 1 kV (3*50+25+35)mm², are as follows:

- Main phase conductor** = **50 mm²**
- Construction =7 wires- hard drawn aluminum round compacted stranded
- Insulation thickness = 1.6 mm-XLPE
- Lighting conductor construction** = **25 mm²**
- Construction = 7 wires – hard drawn aluminum round compacted stranded
- Insulation thickness = 1.4 mm - XLPE
- Neutral conductor construction** = **35 mm²** AL Alloy
- Construction = 7wire - Non compacted
- Insulation thickness = 1.4 mm XLPE
- Approximate Nominal over all diameter of cable = 32 mm
- Approximate Nominal weight of cable per meter =0.77 kg

Max. D.C. resistance at 20⁰ C:

50 mm² phase condominium =.0641 ohm/km
 25 mm² lighting conductor aluminum =1.2 ohm/km
 35 mm² neutral aluminum alloy =0.986 ohm/km

The main dimensions of the low voltage twisted cable 0.6/1 kV (2x95+25) mm² are as follows:

-Main phase conductor	= 95 mm²
-Construction	= 19 wires
-Insulation thickness	= 1.8 mm-XLPE
-Lighting conductor construction	= 25 mm²
-Construction	= 7 wires
-Insulation thickness	= 1.2 mm - XLPE
-Neutral conductor construction	= 95 mm² AL Alloy
-Construction	= 19 wires
- Insulation thickness	= 1.6 mm XLPE

The maximum span in which the cable could be broken due to its weight with 10 mm ice radial thickness only and with 10 mm ice radial thickness plus 700 N/m² wind loading should be calculated by the Tenderer and given in his offer.

2.2 Consumer Service Cables

Cables must have (2) cores, one for phase and one for neutral of (1x16+16) mm², and (4) cores, three for phases and one for neutral, of (3x25+25) mm². All cores should be insulated.

Conductors for phases must be hard drawn aluminum round compacted stranded conductors and their size is (16) mm² and (25) mm². The neutral conductor must be of aluminum alloy for (16) mm² and (25) mm² cable. All cores are (XLPE) weather and Ultra-Violet (UV) resistance insulated, in accordance to NFC Standard or equivalent.

Tension charts for the required types of cables should be submitted with the offer to cover the following design conditions:-

	<u>Cold area</u>	<u>Hot area</u>
Min. ambient temp.....Deg C	-10	0
Every day temp.....Deg C	20	25
Max. ambient temp.....Deg C	40	50
Wind Loading (over ice)..... (N/m ²)	700	700
Ice loading (radial thickness).... (mm)	10	0
Factor of safety at min. temp.	2.5	2.5
Factor of safety at every day temp.	5	5

The main dimensions of the low voltage twisted cable 0.6/1 kV (1*16+16)mm² are as follows:

- Main phase conductor** = **16 mm²** hard drawn aluminum
round compacted stranded
- Neutral conductor construction** = **16 mm²** AL Alloy
- Average Insulation thickness = 1.2 mm XLPE
- Nominal over all diameter of cable = 14 mm

The maximum span in which the cable could be broken due to its weight with 10 mm ice radial thickness only and with 10 mm ice radial thickness plus 700 N/m² wind loading should be calculated by the Tenderer and given in his offer.

-*Max. D.C. resistance at 20⁰ C:*

16 mm ² phase condominium	=1.910 ohm/km
16 mm ² neutral aluminum alloy	=2.2 ohm/km

The main dimensions of the low voltage twisted cable 0.6 / 1 kV (3*25+25)mm² are as follows:

- Main phase conductor** = **25 mm²** hard drawn aluminum
round compacted stranded
- Neutral conductor construction** = **25 mm²** AL Alloy
- Average Insulation thickness = 1.4 mm XLPE
- Nominal over all diameter of cable = 25 mm

-*Max. D.C. resistance at 20⁰ C:*

25 mm ² phase condominium	=1.2 ohm/km
25 mm ² neutral aluminum alloy	=1.38 ohm/km

3. ACCESSORIES AND CLAMPS

3.1 GENERAL

All accessories for attachment to poles must suit the specified steel or concrete poles and the offered cables.

All connectors must be insulated and must suit insulated cables and bare aluminum wires.

The bidder must include in his offer detailed drawings showing the complete general arrangement with all accessories required for joints, Terminals, Connectors, Clamps and Connectors to the existing split concentric service cables.

Detailed drawings or catalogues for the offered materials must be included in the offer in addition to the samples.

3.2 DEAD END/ANCHORING CLAMP for 70mm² neutral messenger

This is used for single or double dead-ending of low voltage A.B.C. (Aerial Bundled Conductors) in accordance with NFC 33-041 standards or international equivalent standards and shall be self-tightening for insulated neutral messenger of section 70 mm² to steel or concrete poles by means of the reinforced bracket in clause 3.4. The Dead-end Clamp is composed of:

- Body: shall be made of Noncorrosive & weatherproof aluminium alloy, the design of the body shall help to wedge the cable in a smooth way.
- Two conical wedges (swing sides): shall ensure the clamping of the insulated neutral messenger without damaging the insulation. It shall be made of UV resistant glass fiber reinforced synthetic material. Wedges shall be un-losable, also must not be separated from the body and move together in order to prevent installation problems or loose parts up in the ladder and avoid interferences between the wedges. These parts shall not damage the insulating sheath.
- An un-losable stainless steel flexible cable equipped with a movable insulating wear-resistant saddle and two sleeves compressed on the ends to be locked on the clamp body.

The breaking load of the clamp shall be not less than 1500daN.

3.3 SERVICE DEAD END CLAMP FOR NEUTRAL CONDUCTOR OF 16 & 25 mm².

The service dead-end clamp shall comply with the requirements of NFC 33-042- latest edition.

- This dead end is used for self-supporting overhead cables (single phase cable size 1x16+16 mm² and three phase 3x25+25 mm²) with insulated AL Alloy messenger.

Construction

This is used for single or double dead-ending of low voltage A.B.C. (Aerial Bundled Conductors) in accordance with NFC 33-041 standards or international equivalent standards and shall be self-tightening for insulated neutral messenger of section 25 & 16 mm² to steel or concrete poles by means of the reinforced bracket in clause 3.4. The Dead-end Clamp is composed of:

- 1-The body of the clamp should be made of high strength mechanical material resistance to corrosion.
- 2- The wedge (swing sides) should be made of UV- resistance thermoplastic and un-losable, also must not be separated from the body and move together in order to prevent installation problems or loose parts up in the ladder and avoid interferences between the wedges. These parts shall not damage the insulating sheath.
- 3- The bail should be made of high strength stranded stainless steel and covered with plastic thimble at the part of anchoring with the bracket.
- 4-The clamp shall be suitable for messengers of 16&25 mm²
- 5- Minimum-breaking load of the clamp should be 4.KN

3.4 REINFORCED BRACKET FOR TENSION

For attaching self supported overhead cables on steel or concrete poles by means of **Dead-End** clamp.

A bracket shall be made of high strength aluminum alloy heat treated and resistance to corrosion; it should have smooth service without any sharp edges. The bracket should be fixed on poles by two (20X 0.7mm) stainless steel straps and buckles, and permit single or double anchoring.

3.5 SUSPENSION CLAMP WITH BRACKET

This Item used for up-holding and fixing of self supported over head cables with insulated messenger on to steel or concrete poles in straight and slight angle lines. The suspension clamp shall be one piece assembly for low voltage A.B.C. (Aerial Bundled Conductors) with insulated

neutral messenger of section 70 mm², and comply with the requirements of NFC 33-040 or international equivalent standard. The clamp should allow a slight transversal and longitudinal movement and must not damage or cut the insulation of the messenger. The Suspension / Angle is composed of:

- A Single piece bracket: shall be made of high strength aluminum alloy heat treated and resistance to corrosion; it should have smooth service without any sharp edges. The bracket should be fixed on tubular steel poles of outside diameter 3 and 4 inches, and shall be achieved by two 20x0.7 mm stainless steel straps and buckles. An upper bulge shall be used to prevent the clamp from turning over on the bracket.
- Movable link system: shall allow a transversal and longitudinal movement of the suspension body clamp. It shall be made of UV resistant glass fiber reinforced synthetic material.
- Suspension body clamp: the same insulating material as the movable link. It shall be capable for locking and clamping of the insulated neutral messenger without damaging the insulation by a notched knee joint device.

The clamp should be made of high mechanical and climatic resistance material. The Breaking load of the clamp shall be not less than 1500daN according to NFC 33-40.

3.6 ALUMINUM/ALUMINUM WATERPROOF ALL INSULATED PIERCING CONNECTOR (BOLTED TYPE) 6KV

For the connecting of XLPE AL-self supported overhead cables to XLPE AL- self supported overhead cable without peeling the insulation of the conductor, the connection shall be applied on conductor under voltage. The connector should be manufactured and dimensioned in order to be reliable in normal use and does not cause danger to the user or the surroundings and ensure very good contact with the conductor and gives full current transfer between main and tap.

The Complete piercing connector shall be watertight withstanding 6kV flashover in water. Its insulating body is highly climatic and mechanically resistant, easy to install and safe to use. Simultaneous insulation piercing on main and tap. Potential free tightening screws hot dip galvanized. It shall be equipped with shear head screw and insulating tap cable end caps. The insulation material of the piercing connector must be Ultra-Violet (UV) resistance in compliance with standards NFC 33-020 or

international equivalent standard. Piercing connector shall be composed
Body of:

- and seals: Shall be made of the Thermoplastic Weather UV radiation proof material, watertightness of connectors shall be ensured by appropriate elastomer materials and shall not be totally based on use of grease, gel, paste.
- Grease: Shall be based on silicon with no dripping point.
- Teeth: Tin Plated High Purity Hardened Copper, the teeth shall be of high conductivity between Aluminum and Aluminum conductors in certain conditions, also the teeth shall be suitable to be used on both XLPE or PVC insulated cable.
- Shear Head: There shall be a metallic shear head to ensure that bolt has been tied to certain torque, the torque shall be between 16- 20 N.m for conductor cross-sections below or equal to 95 mm²; for conductor cross-sections over 95 mm² and below or equal to 150 mm², this torque shall be 18- 30 N.m)
- Bolt, washer and Nut: They shall be made of Stainless Steel, Brass or galvanized Steel. The bolts shall have a security safety pins to prevent the disassembly the connector, and with same heads as per the shear head.
- End cap: Fixed to the connector; to prevent losing the end cap, it should be always attached to the connector.

Manufacturer should state clearly in his offer the current carrying capacity of the connector. The connectors should be used for:

1. MAIN LINE: INSULATED ALUMINUM. AND ALUMINUM ALLOY.
2. TAP LINE : INSULATED ALUMINUM. AND ALUMINUM ALLOY.
3. ALUMINUM / ALUMINUM.
4. ALUMINUM ALLOY / ALUMINUM ALLOY.

The connector should fulfill the following requirements:

1. High mechanical and weather resistant insulating material body.
2. Simultaneous insulation piercing on main and tap.
3. Shear head element: Calibrated part of the tightening system which guaranties the torque recommended (screw treated against corrosion)
4. Seal cap link.
5. Parts; can not be lost.
6. No apparent metallic parts at line potential during and after installation.
7. Protection against water.

8. Greased.
9. Supplied with upper and lower washer under the screws from both sides, the washer shape should be similar to the outer surface of the connector.
10. The screw should not fall if the nut totally loosened.
11. Easy to install.
12. The teeth of the connector should fulfill the following:
 - Resistant to corrosion.
 - All the teeth in the contact parts have the same electrical and mechanical potential.
 - Strong to pierce the Al-alloy (neutral conductor).
13. The bolt inside the piercing connector shall be isolated.
14. The current carrying capacity for piercing shall be suitable with the current carrying capacity of main phase conductor for cables at 20 C° shall be not less than 300A.

3.7 BIMETALLIC WATERPROOF INSULATED PIERCING CONNECTOR (BOLTED TYPE) 6KV

For the connecting of XLPE AL-self supported overhead cables to P.V.C copper underground or over head cable (for street lighting or service cables) without peeling the insulation of the conductor. The connector should be manufactured and dimensioned in order to be reliable in normal use and does not cause danger to the user or the surroundings and ensure very good contact with the conductor and gives full current transfer between main and tap.

The Complete piercing connector shall be watertight withstanding 6kV flashover in water. Its insulating body is highly climatic and mechanically resistant, easy to install and safe to use. Simultaneous insulation piercing on main and tap. Potential free tightening screws hot dip galvanized. It shall be equipped with shear head screw and insulating tap cable end caps. The insulation material of the piercing connector must be Ultra-Violet (UV) resistance in compliance with standards NFC 33-020 or international equivalent standard. Piercing connector shall be composed of:

- Body and seals: Shall be made of the Thermoplastic Weather UV radiation proof material, watertightness of connectors shall be ensured by appropriate elastomer materials and shall not be totally based on use of grease, gel, paste.
- Grease: Shall be based on silicon with no dripping point.
- Teeth: Shall be of Tin-Plated High Purity Hardened Copper (**Brass and Aluminum Teeth are not accepted**), the teeth shall be of high

conductivity and shall allow bi-metallic connections between Aluminum and Copper conductors in certain conditions, also the teeth shall be suitable to be used on both XLPE or PVC insulated cable.

- Shear Head: There shall be a metallic shear head to ensure that bolt has been tied to certain torque. the torque shall be 16- 20 N.m for conductor cross-sections below or equal to 95 mm²;and for conductor cross-sections over 95 mm² and below or equal to 150 mm², this torque shall be 18- 30 N.m)
- Bolt, washer and Nut: They shall be made of Stainless Steel, Brass or galvanized Steel. The bolts shall have a security safety pins to prevent the disassembly the connector, and with same heads as per the shear head.
- End cap: Fixed to the connector to prevent losing of the end cap. Always attached to the connector.

Manufacturer should state clearly in his offer the current carrying capacity of the connector. The connectors should be used for:

1. MAIN LINE: XLPE INSULATED ALUMINUM.AND ALUMINUM ALLOY.
2. MAIN LINE: PVC INSULATED ALUMINUM AND COPPER.
3. TAP LINE: PVC INSULATED COPPER OR ALUMINUM.

The connector should fulfill the following requirements:

1. High mechanical and weather resistant insulating material body.
2. Simultaneous insulation piercing on tap side.
3. Shear head element: Calibrated part of the tightening system which guaranties the torque recommended by the manufacturer (screw treated against corrosion)
4. Seal cap link.
5. Parts; can not be list.
6. No apparent metallic parts at line potential during and after installation.
7. Protection against water.
8. Greased.
9. Supplied with upper and lower washer under the screws from both sides, the washer shape should be similar to the outer surface of the connector.
10. The screw should not fall if the nut is totally loosened.
11. Easy to install.
12. The teeth of the insulated side of the connector should fulfill the following:

- Resistant to corrosion.
- All the teeth in the contact parts have the same electrical and mechanical potential.
- Strong to pierce the Al-alloy (neutral conductor).

13. The bolt inside the piercing connector shall be isolated.

14. The current carrying capacity for piercing shall be suitable with the current carrying capacity of main phase conductor for cables at 20 C° shall be not less than 150A.

4 Inspection and Testing

The manufacturer shall submit a test certificate to proof that the following tests had been successfully carried out according to the latest French Standard (NFC) in independent, qualified and well-recognized testing laboratories such as STL accredited laboratories or equivalent to be accredited by EDCO.

NFC 33-041 (DEAD END CLAMP WITH BRACKET)

- 2.3 Mechanical tests
- 2.4 Voltage test
- 2.5 Dynamic test at low temperature
- 2.6 Climatic ageing test
- 2.7 Corrosion test
- 2.9 Endurance test under mechanical and thermal stresses

NFC 33-040 (SUSPENSION CLAMP WITH BRACKET)

- 2.3 Mechanical tests
- 2.4 Voltage test
- 2.6 Climatic ageing test
- 2.7 Corrosion test
- 2.9 Endurance test under mechanical and thermal stresses

NFC 33-020 (INSULATED PIERCING CONNECTOR)

- 2.3 Mechanical tests
- 2.4 Voltage and watertightness tests
- 2.5 Installation test at low temperature
- 2.6 Climatic ageing test
- 2.7 Corrosion test
- 2.8 Electrical ageing test
- 2.9 Temperature rise and overcurrent test

Adequate notice (not less than **21 days**) shall be given when materials are ready for inspection or test and every facility shall be provided by the supplier to enable the purchaser to carry out the necessary inspections and tests.

5 Erection and Maintenance Instructions

The supplier must submit for approval complete erection and maintenance instructions to cover all materials included in his offer. After approval a further six copies of the final approved form must be supplied.

6 Marking

Each device unit shall permanently bear with:

- The trademark or the logo of the manufacturer, the batch reference and the code of the manufacturing plant.
- The designation as per this standard and the commercial reference, if any.
- The minimum and maximum cross-section on which the connector can be used.
- The shear head torque for connectors.
- Manufacturing date.

Note: Sample must be submitted with the offer.

7 Tender Drawings and Requirements

The Tenderer must submit with the offer the following list of documents:

-
- (a) Type test certificate for each item according to the submitted standard
- (b) Routine test for each item according to the submitted standard
- (c) Copy of the standard in English
- (d) Complete set of catalogues and drawing showing the offered accessories.

Note: Any offer that is not clear or not enclosed with clear specifications, drawings, catalogues and mark samples; EDCO has the right to reject that offer during evaluation without any prior notice.

SCHEDULES AND GUARANTEES

<u>SCHEDULE NO.</u>	<u>DESCRIPTION</u>
<u>A</u>	<u>Schedule of Requirements</u>
<u>B</u>	<u>Price schedules</u>
<u>C</u>	<u>Guaranteed delivery period schedules</u>
<u>D</u>	<u>Manufacturers, places of manufacture and testing place</u>
<u>E</u>	<u>Technical Particulars and Guarantees Schedules</u>
<u>F</u>	<u>List of type test certificates</u>
<u>G</u>	<u>Reference list</u>
<u>H</u>	<u>Deviation from specifications Schedules if any</u>

SCHEDULE (A)
SCHEDULE OF REQUIREMENTS

Item No.	Description	Stock Code	Unit Item	Quantity Required
1.	Accessories for aluminum self-supported insulated aerial bundled cable for attachment to poles complete as follows:			
1.1	Dead end clamp for 70 mm ² neutral messenger.		set.	2000
1.2	Suspension clamp with bracket		set.	2000
2.	Connectors complete with all the accessories to connect two LV aluminum insulated self-supported aerial cables, to connect LV aluminum insulated self-supported area cables to bare aluminum overhead lines or to P.V.C copper underground or overhead cable as follows:			
2.1	Bimetallic all insulated piercing connectors 25-120 mm ² AL / 4-35 mm ² CU. .		No.	40000

SCHEDULE (B)
PRICES SCHEDULES

ITEM NO.	DESCRIPTION	QTY AND UNIT	UNIT PRICE & CURRENCY		TOTAL PRICE C & F AQABA JORDAN
			FOB	C & F AQABA	
1	Accessories for aluminum self-supported insulated aerial bundled cable for attachment to poles complete as follows:				
1.1	Dead end clamp for 70 mm ² neutral messenger.	2000 set			
1.2	Suspension clamp with bracket	2000 set			
2	Connectors complete with all the accessories to connect two LV aluminum insulated self-supported aerial cables, to connect LV aluminum insulated self-supported area cables to bare aluminum overhead lines or to P.V.C copper underground or overhead cable as follows:				
2.1	Bimetallic all insulated piercing connectors 25-120 mm ² AL / 4-35 mm ² CU.	40000 EA			
3.	cost for one EDCO engineer to witness FAT for one week including the travelling days	lot			
TOTAL PRICE (C & F) AQABA					

IMPORTANT NOTES:

- 1. EDCO HAS THE RIGHT TO ACCEPT PARTIAL OFFERS AND TO AWARD PART OF THE ITEMS OR QUANTITIES WITHOUT ANY LIMIT REGARDLESS CLAUSE (2.3) FROM SECTION III (GENERAL CONDITIONS OF CONTRACT).**
- 2. EDCO HAS THE RIGHT TO REJECT ANY OFFER BASED ON EDCO EVALUATION TO THE QUALITY, RELIABILITY AND WELL-KNOWN MANUFACTURERS.**

SCHEDULE (C)
GUARANTEED DELIVERY PERIODS IN WEEKS

ITEM NO.	DESCRIPTION	DELIVERY PERIOD FOB -SPECIFY PORT	DELIVERY PERIOD TO AQABA PORT JORDAN
1.	Accessories for aluminum self-supported insulated aerial bundled cable for attachment to poles complete as follows:		
1.1	Dead end clamp for 70 mm ² neutral messenger.		
1.2	Suspension clamp with bracket		
2.	Connectors complete with all the accessories to connect two LV aluminum insulated self-supported aerial cables, to connect LV aluminum insulated self-supported area cables to bare aluminum overhead lines or to P.V.C copper underground or overhead cable as follows:		
2.1	Bimetallic all insulated piercing connectors 25-120 mm ² AL / 4-35 mm ² CU.		

Delivery period shall be as short as possible, and it will be considered during evaluation, at any way the delivery time

shall not exceed (12) weeks, C&F Aqaba port from the date of receipt EDCO purchasing order.

SCHEDULE (D)
MAUFACTURERS AND PLACES OF MANUFACTURE,
TESTING AND INSPECTION

ITEM NO.	DESCRIPTION	MANUFAC-TURER	PLACE OF MANUFAC-TURE	PLACE OF TESTING AND INSPECTION	COUNTRY OF ORIGIN
1.	Accessories for aluminum self-supported insulated aerial bundled cable for attachment to poles complete as follows:				
1.1	Dead end clamp for 70 mm ² neutral messenger.				
1.2	suspension clamp with bracket				
2.	Connectors complete with all accessories to connect two LV aluminum insulated self-supported aerial cables, to connect LV aluminum insulated self-supported area cables to bare aluminum overhead lines or to P.V.C copper underground or overhead cable as follows:				
2.1	Bimetallic all insulated piercing connectors 25-120 mm ² AL / 4-35 mm ² CU. .				

SCHEDULE (E)
TECHNICAL PARTICULARS AND GUARANTEES
TO BE FILLED COMPLETELY BY BIDDER

This Schedule shall be completed by the Tenderer, and particulars and guarantees will be binding on the contractor.

DESCRIPTION	Unit	Dead-end clamp. Item No. 1.1	Suspension clamp. Item No. 1.2
Net weight in grams	GRAM		
Material of the body type			
Material of the wedges			
Material of the bail			
Min. breaking load of the clamp	K.N		
Max. allowed working load			
Min. Slipping			
Messenger ranging IN SQ.MM to SQ.MM	K.N		

Cont SCHEDULE (E)
TECHNICAL PARTICULARS AND GUARANTEES
TO BE FILLED COMPLETELY BY BIDDER

Description	Particulars	
	Unit	Bimetallic all insulated piercing connectors 25-120 mm ² AL / 4-35 mm ² CU. .. Item No. 2.1
Net weight in grams		
Run range Frommm ² to.....mm ²	GRAM	
Tap range Frommm ² to.....mm ²		
Maximum current carrying capacity in the run	Amp	
Maximum current carrying capacity in the tap	Amp	
Maximum losses at maximum current capacity in the run	Watt	
Maximum losses at maximum current capacity in the tap	Watt	
Insulation teeth material		
Teeth material		
Shear head material	N.M	
Contact torque	K.N	
Shear head (break away torque) In .NM	N.M	
Break away torque	N.M	
Minimum tighten torque indicated by the manufacturer to carry the maximum current carrying capacity	MV	
Voltage drop in mill volts across the connector after one hour of applying the full load current (state ambient temp and temperature of the clamp at the time of measurement the voltage drop)		

SCHEDULE (F)

LIST OF TYPE TEST CERTIFICATES FOR SIMILAR OFFERED MATERIALS

Tenderers shall provide the information required below for the type test certificates from a recognized testing station covering the equipment offered to recommendations of mentioned standard & shall be submitted with the tender.

Failure to provide copies of type test certificates/reports could result in rejection of the tender.

Type tests made on identical designs of equipment to those offered	Certificate No.	Certificate Authority

SCHEDULE (G)
SERVICE EXPERIENCE OF FOR SIMILAR OFFERED
MATERIALS

Tenderers shall provide the information required below for the service experience of the same offered materials.

Customer/Country	Type	Total Qunt. (Pc.)	No. of years in service

SCHEDULE (H)
DEVIATIONS FROM SPECIFICATIONS (IF ANY) TO
BE COMPLETED BY THE TENDERER

ITEM NO.	BREIF DESCRIPTION	DEVIATIONS