THE HASHIMITE KINGDOM OF JORDAN
NATIONAL ELECTRIC POWER CO.
P.O. BOX 2310
AMMAN 11181

المملكة الأردنية الهاشمية
شركة الكهرباء الوطنية م.ع
ص.ب 2310
عمان 11181

TENDER NO.78/2026

SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

1. Invitation To Tender.
2. Instructions To Tenderers.
3. Forms of Tender.
4. Conditions Of Contract.
5. Technical specification and drawings.
6. Technical Schedules.
7. Price Schedules.

TENDERER:

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……
……

SECTION 1

- INVITATION TO TENDER

- TENDER ACKNOWLEDGEMENT

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

INVITATION TO TENDER

The National Electric Power Company (NEPCO) intends to have a loan and /or from NEPCO's own sources towards the cost of supply of composite insulators **(Lot1 for 132kV & Lot2 for 400kV)** for Overhead Transmission line Maintenance purposes.

The National Electric Power Company hereby invites sealed Tenders from eligible Tenderers for design, manufacture, testing, packing for export, supply CFR Aqaba Docks - Jordan, and guarantee for a period of (12) months from the date of receipt of last consignment at NEPCO warehouses.

Interested Eligible Tenderers may obtain further information at the office of:

National Electric Power Company
PO Box 2310
11181 Amman
Jordan

Telephone: +(962) 6-5858615
Telefax: +(962) 6-5818336

A complete set of Tender Documents may be purchased through E-FAWATEERCOM by any interested eligible Tenderer and upon payment of of a non-refundable fee of **JD 200 (Two Hundred Jordanian Dinars).**

Tenders must be submitted through JONEPS Website (www.joneps.gov.jo), not later than 14.00 noon Amman time on **TUESDAY 08/12/2026.**

All Tenders must be accompanied by a Tender Guarantee in the amount of **JD 9000 (Nine Thousand Jordanian Dinars)** in the form of a Bank Guarantee issued directly by an approved Bank located in Jordan and in the form provided in the Tender Documents must be submitted in Enclosed Envelope to **Purchasing Department / NEPCO Main offices** before the closing date..

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

TENDER ACKNOWLEDGEMENT

National Electric Power Co
P.O. Box 2310
11181 Amman
Jordan

Telefax: + (962) 6-5818336

Attention: The Managing Director,

Dear Sirs

We the undersigned

_____

Acknowledge receipt of the Tender Documents for Tender Number (78/2026) comprising one copy of each of the following:

- Invitation for Tenders, Instructions to Tenderers, Conditions of Contract and Tender Forms.
- Technical Specification and Drawings.
- Technical Schedules.
- Price Schedules.

We wish to receive any further information concerning this Tender at the following address:

Name:

_____

Address:

_____

_____

_____

Our local agent in Jordan is:

Name:

_____

Address:

_____

_____

_____

In case of not submitting this form to NEPCO before closing date, it is the Tenderer responsibility of not receiving correspondence, amendments to the tender, addendums… etc.

Section 2

INSTRUCTIONS TO PERSONS TENDERING

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NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

INSTRUCTION TO PERSON TENDERING

1. The Tender shall be made in one copy on the accompanying form of tender with all blanks therein and in all the Schedules duly filled up in ink and signed, The Tender price shall include all incidental and contingent expenses. In particular, the Form of Tender must be completed and signed without alteration.

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 bond document and shall be the sum total of all the amounts printed into and entered by the Tenderer upon the Schedule of Prices.

Should the Tenderer consider that he can offer any advantages to the purchaser by a modification to the Specification he may draw attention to such by an attached document stating the change in the amount of his Tender if such modification is accepted by the Purchaser, but the total entered on the Form of Tender shall be such as represents complete compliance with the bound document.

2. No alteration shall be made in the Form of Tender or in the Schedules there to except in filling up the blanks as directed, If any such alteration to be made or if these Instructions will not be 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.

3. The Tenderer shall submit with his Tender in order of the relevant clauses, a statement of any departures from the Specifications. 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 Specifications.

4. Although IEC Recommendations and British 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 they are substantially equivalent to the designated Standards and provided furthermore that the Tenderer submits for approval Specifications which he proposes to use.

5. References to brand names or catalogue 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.

6. <u>Pre-Tender Meeting and Site Visit: (NOT APPLICABLE)</u>

6.1 The Bidder is advised to attend the pre-bid meeting and site visit. A pre-bid meeting and site visit shall be held as mentioned in the invitation letter in NEPCO offices.

6.2 The Bidder is advised to visit and examine the site and surroundings where the Facilities are to be installed and obtain for itself on its own responsibility all information that may be necessary for preparing the tender and entering into a contract. The costs of visiting the site shall be at the Bidder's own expense.

6.3 The Bidders shall visit the site and make himself aware of the details of the existing system/facilities. Modification work at the associated materials shall be compatible with the existing system, site visit is a must during bidding stage, the bidders are responsible to arrange for such site visit and such site visit will also be approved by NEPCO.

6.4 Where the Bidders and any of its personnel or agents have been granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, the Bidders, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury (whether fatal or otherwise) , loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the visit.

6.5 Failure to investigate the Site shall not relieve the Bidders from responsibility for estimating properly the difficulty or cost of successfully performing the Works.

6.6 If the site visit cancels a report of the site visit carried out by NEPCO will be provided.

7. 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 subcontract one or more of the main sections of the equipment and materials.

8. If the Tenderer has any doubt as to the meaning of any portion of the General Conditions or the Specifications or Drawings, he shall when be submitting his Tender, set out in his covering letter the interpretation on which he relies.

9. The purchaser does not bind himself to accept the lowest or any tender, nor to assign any reason for the rejection of any tender, nor to purchase the whole of the equipment and materials specified.

10. The purchaser will not be responsible for, nor pay for, any expense or loss, which may be incurred by a Tenderer in the preparation of his Tender..

11. No tender received after that time will be considered.

12. All correspondence in connection with this Tender and Contract and all matter accompanying the Tender which is relevant to its examination shall be in the English language and expressed in metric units.

13. 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.

14. A non-refundable fee of JD 200 **(Two Hundred Jordanian Dinar)** will be charged for each set comprising one copy of the Tender Documents.

15. 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 to Tender closing date, or a certified cheque in favour of and payable to the Purchaser for a sum of **JD 9000 (Nine Thousand Jordanian Dinars)** as guarantee of good faith.

16. This Bond is to be issued by any approved Bank in Jordan. The Bond will be returned to the unsuccessful Tenderer according to **Regulation No. (8) For the year 2022 Government Procurements Regulation**. 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.

17. Tenders received prior to the time fixed for opening 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.

18. 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.

19. A) Any arithmetical error shall be corrected by a decision of the procurement committee and the bidder must be notified accordingly, provided that the arithmetical corrections are as follows:

1. In the event of a discrepancy between the unit price and the total amount, the unit price shall be adopted and the total price shall be corrected accordingly unless there is clear evidence that the decimal point is misplaced.
2. If there is an error in the total amounts in the Bill of Quantities as a result of the addition and subtraction processes of the sub-totals, the subtotals shall be adopted and the total price shall be corrected accordingly.
3. In the event of a discrepancy between the unit price, in figures and in writing, the unit price that mentioned in writing shall be adopted unless the procurement committee finds a basis for the adoption of the price mentioned in figures.
4. If any bidder does not accept the correction of the errors after the analysis and evaluation, its submission shall be excluded and the bid bond shall be forfeited by a decision of the procurement committee.
5. If the bidder has not priced one or more of the items in the works and technical services tendering, these unquoted items shall be considered to be loaded on the other items of the tender, and the bidder shall execute them free of charge, if

the tender has been awarded to it, whether the bidder attaches or does not attach those items in the tender.

B) Subject to the provisions of paragraph (a) of this Article, the basis for the examination of submissions included in the unified works contract for the construction projects shall be adopted.

20. Where compliance with a specific Standard Specification is called for the Standard Specification used shall be that in force at the time of Tender.

21. The successful Tenderer shall abide by the commercial and professional regulations as required by the Ministry of Industry & Trade, Engineering Association, Jordan contractor's association and other relevant Institutions in Jordan. (If applicable).

22. The Tenderer may state the Tender Price in Jordanian Diners. If, however, a portion of the Tenderers 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.

23. Tender evaluation will be consistent with the terms and conditions set for in the Tender documents.

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.

24. For comparison of all Tenders, the currency or currencies of the Tender Price for each Tender will be valued in terms of Jordan 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 of Tenders closing date unless there should be a change in the value of the currencies before the award is made. In the later case, the exchange rates prevailing at the time of the decision to notify the award to the successful Tenderer may be used.

25. Stamp duty and award fees are payable on Jordanian Contracts according to Jordanian laws, it is the Contractor's responsibility to purchase legal stamps to the requisite amount depending on the Contract Value, these fees should be paid within 10 days of the date of LOA and before signing the contract to the Ministry of Finance, otherwise penalties will be imposed according to laws and regulations.

If the final contract price is increased during or after completion of the works, contractor shall pay extra stamp duty and award fees proportional to the amount of increase.

26. Before signing the contract and within 28 days from date Letter of Award, the successful Tenderer shall furnish an irrevocable and unconditional Performance Bond of (**10%**) of the total contract price in the form given and in the same contract currency, and you are required to extend the validity of the Bid Bond until the Performance Bond has been established and accepted by NEPCO.

The Performance Bond shall be valid for a period expiring at least one month after receipt of the last consignment at NEPCO warehouse and shall still enforce until submission of the maintenance Guarantee for the Guarantee Period.

Failure of the successful Tenderer to comply with the requirements of above Sub-Clause shall constitute sufficient grounds for the annulment of the award and forfeiture of the tender security, in which event the Employer may make the award to the next lowest evaluated Tenderer or call for new tenders.

If any variation order has been issued to increase the contract price during the contract duration, the contractor must increase the performance bond to the value of (**10%**) of the increased amount.

The contractor shall seek for releasing Performance Bond upon fully finalized all contractual terms required and submit of maintenance Guarantee.

27. For overseas transport, the Contractor and his sub-contractors Suppliers and Manufacturers shall give priority to Jordan National Line Co., and to Arab shipping companies and their subsidiaries for, the shipping of goods, materials and Plant provided such companies ships call at the port of export. The Contractor shall also give priority to the Royal Jordanian Airlines for airfreight shipment and transport of personnel. Shipment by sea freight must be on direct and regular (liner) vessel less than 15 years old at the time of shipment. The vessel should be classified and in accordance with (ISM) code and should be a member in the P&I club

28. Any further information may be obtained on application in writing to: -

Managing Director
National Electric Power Company,
P.O. Box 2310, Amman, 11181
The Hashemite Kingdom of Jordan.

29. The Contractor should print NEPCO Stock Code No. on the supplied materials which can be obtained in due time.

30. The bid bond shall be submitted either by the supplier or by the vendor on behalf of supplier in condition that he is fully authorized by Power of attorney letter from the supplier.

31. Tenderer must submit country of origin and name of manufacturer for the offered goods.

32. Tenderer shall submit his offer based on single price.

33. Tenderer must fill the schedules of bill of quantities incorporated with breakdown prices of this tender.

34. Tenderer must complete the technical data sheets of this tender.

35. Partial shipment of the required materials may be accepted based on the employer's approval after the tender has been awarded.

36. Insurance:

NEPCO undertakes to insure all the shipped materials and equipment's with local Jordanian companies against all risks from the time they leave the works until they are delivered at NEPCO warehouse.

The contractor must provide full details of the material to be dispatched in good time for NEPCO to arrange for insurance before material is actually dispatched.

37. Payments:

Terms of payment for this contract will be strictly according to paragraph No.8 (Terms of Payment) of General Conditions of the Contract.

38. Contract Incoterms:

For execution of this contract, the chosen incoterms are as follows:

"CFR Aqaba Docks - Jordan Incoterms 2020"

In case of locally manufactured materials and the awarding has been done into local Jordanian company the required delivery and prices will be assumed as (delivery to NEPCO Stores).

39. This document is subject to the provisions and instructions of the **Government Procurement Regulation No. (8) Of 2022**.

40. Tenderers Eligibility and Qualification:

In order to satisfy the requirements for eligible experience, the Tenderer shall provide documentary evidence to establish:

A. That, in the case of a Tenderer offering to supply materials and equipment under the contract which the Tenderer does not manufacture or otherwise produce, the Tenderer has been **duly authorised by the manufacturer or producer** of the plant and equipment to supply them in the employer's country.

B. Documentary evidence of the manufacturer/ producer qualification to perform the Contract and the manufacturer/ producer has the technical capacity and production capability necessary to perform the contract. In particular, it is required that:

- The Tenderer/ manufacturer/ producer shall provide documentation, certified by the owner (Three End-user certificates), to show that the **composite insulators** to be supplied, having similar type and same place of manufacture, is in successful commercial service for a minimum of **two** years in **three different countries** within the last 15 years (2011 - 2025). **Appendix No.1 should be filled**.

- End-user certificate should conform the following:
    - Certified (signed and stamped) by the owner of the plant (end-user) not from the contractor In English language, printed officially and stamped,
    - End-user certificate shall show clearly the following:
        a. Name of customer/company and complete address where equipment is installed.
        b. Date of issuance of certificate.
        c. Date of put in operation.
        d. Rating, capacity of related equipment

    Original performance/end-user certificate maybe returned, if required by tenderer.

    If the manufacturer has already supplied similar insulators which have been installed on NEPCO's national grid with long-term performance satisfactory, this can be considered as one of the required end-user certificates.

C. The Tenderer/ manufacturer/ producer shall provide Third party Type **Test Certificates** according to IEC 61466, 60120, 61109, 60372 and other relevant standards having the type and rating of the offered insulators (same or above) and the same place of manufacture. Type test certificate may be accepted provided that tested insulator structure corresponds to the offered one. The submitted type test certificate shall not be older than 15 years.

Otherwise, Type Test will be conducted and witnessed by two inspectors from NEPCO's engineers at an approved testing laboratory, all costs for the tests will be incurred by the contractor according to paragraph (5) (Inspection as in technical specification) in tender conditions.

- **The factory being qualified for 400 kV insulators will be qualified by default for 132 kV insulators.**

Failure to supply the required qualification documentation (i.e., Equipment End-user Certification & Tenderers qualifications documentation) to the satisfaction of the employer result in rejection of the tender.

41. Domestic preference

Where Tenderers propose to import materials, equipment and supplies which are to be incorporated in the Works and those materials, equipment and supplies could be manufactured locally or have a substitute available from local products, then the Employer shall add (15%) to the price of that specific item for the purpose of Evaluation.

The Tenderer shall be solely responsible to investigate which materials, equipment and supplies could be manufactured locally or have a substitute available from local products.

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

Appendix No.1

Eligibility and Qualification Table

Company Name:

The following Eligibility and Qualification schedule is to be filled and submitted with the offers.

ITEM	PROJECT NAME / COUNTRY	DATE OF SUPPLY / INSTALLATION	INSULATORS TYPE	QUANTITY	END USER DETAILS
1					
2					
3					
4					
5					

IMPORTANT NOTICE

1- Failure to fill this table and provide the relevant testimonials and end-user certificates for the mentioned projects will result in rejection of the tender.
2- General reference list will not be considered for eligibility purpose.

3- NEPCO will contact with end-users, so clear address should be indicated otherwise the offer will be rejected.

Section 3

FORMS

- **Form of Tender**
- **Form of Manufacturer Authorization.**
- **Form of Advance Payment Guarantee**
- **Form of Tender Guarantee**
- **Form of Performance Guarantee**
- **Form of Maintenance Guarantee**
- **Declaration for Prohibited Payments**
- **Declaration for Other Payments**
- **Form of Inspection Certificate**
- **Form of Shipping Release**

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF TENDER

Managing Director
National electric Power Company,
P.O. Box 2310,
Amman, 11181
The Hashemite Kingdom of Jordan.

Dear Sir,

1. Having examined the conditions of contract, Specifications and Schedules for the above Works, we, the undersigned, offer to manufacture, design, engineering, supply of works, and deliver the equipment described in the Specifications and Schedules and in accordance with the said Conditions of the 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 National Electric Power Company a performance Bond, according to clause No.27 instruction to person tendering.

5. We undertake if our Tender is accepted and on receipt of your acceptance to commence and manufacture works, and complete for delivery to Aqaba Docks, the whole of the Works offered within **( ) months.** Calculated from the date of Letter of Award (i.e., commencement date), and to deliver on CFR Aqaba Docks - Jordan the whole of the works offered within a further **( ) months**. (Anyhow all delivery dates will be in accordance with the required completion date of as specified).

6. We will provide details of the plant and materials to be shipped in good time for the National Electric Power Company to arrange for the Insurance.

7. A Guarantee Period will apply to each section of the Works for (12) months from the date of receipt of last consignment at NEPCO warehouse.

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

Date this …… day of …… 20 ……

Signature ……in the capacity of ……..

Duly authorised to sign Tender for and on behalf of……..

……..

Address ……..

Occupation…….

Telephone No:
Fax No. :

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF MANUFACTURER'S AUTHORISATION

The Participant shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. All text within square brackets [ ] is for use in preparing this form and shall be deleted from the final document.

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

Tender No.: **[***insert number of Tendering process***]**

To: **[***insert complete name of Client***]**

WHEREAS

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

We hereby extend our full guarantee and warranty with respect to the goods offered by the above firm.

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

Name**: [***insert complete name(s) of authorised representative(s) of the Manufacturer***]**

Title**: [***insert title***]**

Duly authorised to sign this Authorisation on behalf of: **[***insert complete name of Manufacturer***]**

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

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF ADVANCE PAYMENT GUARANTEE

GUARANTEE NO.

M/S., National Electric Power Co. (NEPCO)
Amman – Jordan

NAME OF CONTRACT: NO. 78/2026 SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

At the request of bank… (The Foreign Bank) and on behalf of M/S……
(The contractor Name and Address), we the…. (The Local Bank) issue in your favour our irrevocable and unconditional Advance Payment Guarantee No……in the amount of (----------) (In words).

In this connection we … (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 not withstanding any objections on the part of the above-named contractor and without any need for notarial warning or judicial proceedings.

This guarantee remains valid from the date of issue till its expiry date on / / then it will be automatically extended for three months, then extending for consecutive periods, and it will not be cancelled unless receiving an official letter issued and signed by you.

Bank (Local Bank)

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF TENDER GUARANTEE

To: **M/S., NATIONAL ELECTRIC POWER COMPANY (NEPCO)**

AMMAN – JORDAN.

NAME OF CONTRACT: NO. 78/2026 SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

WHEREAS (*Name of Tenderer*) (hereinafter called "the Tenderer") has submitted its Tender dated (*date of Tender*) for the performance of the above-named Contract (hereinafter called "the Tender").

At the request of _____ Bank (the *Foreign Bank*) and on behalf of M/S._____ *(the Contractor Name and Address*), we _____(*the Local Bank*) issue in your favour our irrevocable and unconditional Tender Guarantee

No. _____ in the amount of, **JD ---------- (----------** (i*n words)*).

This guarantee will remain in full force for a period of 90 days from the tender closing date, and any demand in respect thereof must reach the Bank not later than the above date.

Bank (Local Bank)

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF PERFORMANCE GUARANTEE

GUARANTEE NO.

M/S., Beneficiary

Amman – Jordan

NAME OF CONTRACT: NO. 78/2026 SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

At the request of the Bank… (The Foreign Bank) and on behalf of M/S. (The contractor Name and Address), we …(The Local Bank) issue in your favour our irrevocable and unconditional performance guarantees No…xxx… In the amount of (XXX) (in words).

In this connection we…. **(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 not withstanding any objections on the part of the above named contractor and without any need for notarial warning or judicial proceedings.

This guarantee remains valid from the date of issue till its expiry date on / / then it will be automatically extended for three months, then extending for consecutive periods, and it will not be cancelled unless receiving an official letter issued and signed by you.

Bank (Local Bank)

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF MAINTENANCE GUARANTEE

GUARANTEE *NO.*

M/S., Beneficiary
Amman – Jordan

NAME OF CONTRACT: NO. 78/2026 SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

At the request of bank (The Foreign Bank) and on behalf of M/S…
(The contractor Name and Address), we the…. (The Local Bank) issue in your favour our irrevocable and unconditional **maintenance guarantee** No……in the amount of (XXXX) (In words).

In this connection we … (**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 not withstanding any objections on the part of the above-named contractor and without any need for notarial warning or judicial proceedings.

This guarantee remains valid from the date of issue till its expiry date on / / then it will be automatically extended for three months, then extending for consecutive periods, and it will not be cancelled unless receiving an official letter issued and signed by you.

BANK (LOCAL BANK)

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF DECLARATION FOR PROHIBITED PAYMENTS *

(i) We, the undersigned, ----------
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declare that we have read and comprehended the provisions under Item 14 of General Condition of the Contract related to this Contract and in compliance with this clause; we enclose a declaration properly signed and sealed representing and warranting to The Employer that no direct or indirect commissions, consulting fees, agent fees, Tender fees or other payments, and no inducements or the giving of anything of value (collectively referred to as "Prohibited Payments"), have been made or promised to be made, directly or indirectly, by or on behalf of the Contractor, its sub-Contractor and its or their Employees, agents or representatives, to The Employer, including without limitation any official, employee, agent or representative (whether or not acting in an official capacity) of The Employer, in connection with the solicitation, bidding, negotiation, award or performance of this Contract; and (ii) hereby covenants and agrees that no Prohibited Payments shall be made or promised to be made, directly or indirectly, by or on behalf, of Contractor, its sub-Contracts and its or their employees, agents or representatives, to any official, employee, agent or representative (whether or not acting in an official capacity) of The Employer in connection with the amendment, modification, renewal, extension or performance of this Contract.

Tenderers Name----------
Name of authorized signatory

Signature

Seal ----------

*** The Tenderer is required to submit a declaration for other payments in a separate envelope whether such payments have been paid or not and the offers of all Contractors that do not include such a declaration will be rejected.**

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF DECLARATION FOR OTHER PAYMENTS *

(i) We, the undersigned, ----------
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declare that we have read and comprehended the provisions under Item 15 of General Condition of the Contract related to this contract and in compliance with this sub-clause; we enclose a declaration properly signed and sealed disclosing any and all direct or indirect commissions, consulting fees, agent fees, tender fees or other payments, or inducements or the giving of anything of value (collectively referred to as "Other Payments") to third parties other than any official, employee, agent or representative (whether or not acting in an official capacity) of The Employer, including without limitation a detailed description of the basis therefore, made or to be made, directly or indirectly, by or on behalf of Contractor, its subcontractors, and its or their employees, agents or representatives, in connection with the solicitation, bidding, negotiation, award or performance of this Contract; and (ii) hereby covenants and agrees promptly to disclose to The Employer in writing the existence of any Third Party Payments including without limitation, a detailed description of the basis therefore, upon the earliest to occur of Contractor making or being obligated to make, any such Third Party Payments.

Contractor's Name

Name of authorized signatory

Signature

Seal ----------

*** The Tenderer is required to submit a declaration for other payments in a separate envelope whether such payments have been paid or not and the offers of all Contractors that do not include such a declaration will be rejected.**

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

FORM OF INSPECTION CERTIFICATE

INSPECTION CERTIFICATE NO.				
CLIENT	**NATIONAL ELECTRIC POWER COMPANY(NEPCO)**			
PROJECT	**SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS**			
CONTRACT NO.	**78/2026**		**ORDER COMPLETE**	**(YES/NO)**
MAIN CONTRCTOR			**L/C NO.:**	
EMPLOYER	**NEPCO**			
TENDERER				
INSPECTED AT			**DATE OF INSPECTION**	
Routine test by manufacturer not witnessed by NEPCO				
EQUIPMENT/ MATERIAL INSPECTED:				
NUMBER INSPECTED:-				
	According to Annex		**Quantity**	
RESULT OF INSPECTION :				
ATTACHMENTS:				
This is to certify that the Equipment/Material covered by this report has been examined				
in accordance with the relevant specification (s) as well as the drawings and diagrams,				
as appropriately tested and described and found to be in condition stated.				
Approved for Dispatch		**Approved for further Work**		**NOT APPROVED**
Waived Inspection Engineer:		**For and on behalf of**		
		National Electric Power Co.		

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SHIPPING RELEASE FORM

CONTRACT NO. .78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

Certificate No: / Date: / /

To:

Your contract reference:

Our contract reference:

RESULT OF INSPECTION: SATISFACTORY

This is to certify that the Equipment / Material covered by this report has been examined in accordance with the relevant specification (s) as well as the drawings and diagrams, as appropriately tested and described and found to be in condition stated.

Manufacturer	**Materials**	**Qty.**	**Total No. Of Packages**

For and on behalf of **National Electric Power Co.**	RECORD PURPOSE ONLY Local Release No: Date: / /

SECTION 4
GENERAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

FOR THE SUPPLY AND DELIVERY OF MATERIALS BASED ON

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

PUBLICATION REF.: ME/ 188

GENEVA. MARCH, 1953

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 the "National Electric Power Company" hereinafter called "NEPCO", and shall include NEPCO legal personal representatives and duly appointed Engineers.

The "Engineer" shall mean the "National Electric Power 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" whose 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 of 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.

"C&F or CFR Price" shall mean F.O.B. Price plus freight. Including unloading at the port of destination. All Marine Insurance will be effected by the Purchaser. The Contractor must provide full details of the material to be dispatched in good time for NEPCO to arrange for Marine Insurance before the material is actually dispatched.

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 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 Jordanian Contract and shall accordingly be governed by to the laws for the time being in force in the Hashemite Kingdom of Jordan.

2.3 Power To Vary The Work

No alterations, 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 the 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 guarantees 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 by 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 variations, such reasonable and proper notice shall be given to the Contractor as will enable him to make his arrangements accordingly, and in cases where goods 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 variation shall, except with the 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.

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.

2.5 Prices

2.5.1 The Tender calls for firm prices for the definite works.

2.5.2 Provisional items may or may not in whole or in part be purchased by the Purchaser under the Contract.

3. Drawings And Descriptive Documents

3.1 The weights, dimensions, capacities, prices, performance ratings and other data included in catalogues, prospectuses, circulars, advertisements, 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 plant 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 plant 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 third party.

3.4 Drawing Guidelines for Contract Drawings

All drawing shall confirm to the following:

1) All drawings are to be prepared on the international sizes as described in BSI BS EN ISO 5457. They are to be of "A" series.

DESIGNATION	SHEET SIZE
A4	**210x297**

2) The NEPCO title block must be added to all drawings produced for the Contract. The block may be reduced in size, depending on sheet size, The NEPCO drawing number must appear in bottom right-hand corner of drawing, the drawings must also include the Contractor's / Consultant's title block adjacent to NEPCO title block.

3) Each drawing to have its own individual number. For schedules, a drawing number to be given and then sheet 1 of x sheets.

4) All descriptive information must be entered in NEPCO title block. All drawings must contain NEPCO drawing numbers as so described and issued by NEPCO.

5) The title block should contain the following:

   1. Revision block as NEPCO requirement.
   2. Name of subject i.e. materials, equipment.
   3. Nature of drawing i.e. site layout, general arrangement, single line diagram.
   4. Any other information or notes.
   5. Dimensions to be in MM or M.
   6. Scale i.e. 1:50, 1:1000.
   7. Contract No. i.e. **78/2026**
   8. DRG. No. NEPCO drawing numbers that allocated by NEPCO.
   9. Rev. to contain latest revision number.
   10. Title block for Contractor/Consultant.
   11. Graphical bar scales where required, not required for single line diagrams or reinforced concrete details.

6) Drawing sheet should be laid out according to NEPCO requirement.

7) Scales to be in multiples of 1:5, 1:10.

8) All information to be stencilled on drawings, block capital letters should be used throughout. No freehand printing on drawing except for "revision or hold" cloud.

9)
   1. Revisions must be lettered and indicated block provided, all revisions to be checked and approved by Engineer.
   2. Revisions must be interred and highlighted by pencilling cloud around the part revised on the reverse side of the tracing sheet as shown rev. b
   3. Vague descriptions of revisions such as "general revisions" should be avoided. Revisions should be specific. No matter how small the revisions, it should be recorded.

10) Notes, reference drawing, and legends should be recorded on drawing, if key plan and north point is required, then apply NEPCO requirement.

11) Example of drawing title blocks and titles should be submitted to NEPCO for approval before commencement of drawings.

12) On completion of contract, the final drawings submitted to NEPCO are to be marked "as built" dated and signed, The drawings must be accompanied by a complete drawing schedule, listing all the drawings in the order of the NEPCO Numbers. The drawings schedule should be in the region of A3 or A4 size.

4. Packing Of 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, and for a reasonable period of storage at Aqaba Docks and later storage at NEPCO central stores.

4.2 Packing for indoor materials should be done in such a manner as to adequately ensure no ingress of moisture during the shipping and storage periods.
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.

4.3 Packing shall in general be adequate and in compliance with the best international practice.

4.4 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 securely fastened to the outside of one end of the case, and its position adequately indicated by stenciling on the case. Where appropriate, drawings showing the erection markings of the item concerned shall be placed inside the case.

4.5 NEPCO will supply the successful Tenderer with a drawing of its shipping Mark for utilization.

4.6 All packing cases, crates, barrels and drums shall remain the property of the purchaser.

5. Materials Testing:

5.1 The contractor is required to provide all facilities to enable the employer's representatives (**two persons for a period of one week excluding travelling days – for each lot**) to carry out the necessary inspection and testing. The costs of all tests during manufacture and preparation of test records including airfares, hotel accommodations, transport, and all meals are to be borne by the contractor. In case of failure of test all costs of repeated trips of the employer's representatives will be borne by the contractor. 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.

5.2 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.

5.3 Testing instruments shall be approved and shall, if required by the employer's representative, be calibrated by the national physical laboratory or such other body as may be approved, at the expense of the contractor.

5.4 Acceptance tests will be carried out and, unless otherwise agreed, will be made at the vendor's works instruments, if 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 plant is manufactured.

5.5 The vendor shall give to the purchaser not less than (30) days' notice of the tests to permit the purchaser's representative to attend. If the purchaser is not

represented at the tests, the test report shall be communicated by the vendor to the purchaser and shall be accepted as accurate by the purchaser. After completion of the FAT the vendor is required to send complete test report with request for shipping release.

The purchaser will check test report/test results and if accepted a shipping release certificate will be issued within 10 days from the receipt of the report/ shipping release request.

5.6 If on any test (other than a test on site, where tests on site are provided for in the contract) the plant shall be found to be defective or not in accordance with the contract, the vendor shall be 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.

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

5.8 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.

5.9 In case of third party testing the contractor will conduct all required tests by the employer through the appointed third-party testing laboratory, all costs for a/m tests will be incurred by the contractor.

6. <u>Passing Of Risk:</u>

6.1 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 (INCOTERM) of the International Chamber of Commerce in force at the date of the formation of the Contract.

7. <u>Delivery:</u>

7.1 **Unless otherwise agreed the delivery period (CFR Aqaba Docks - Jordan) should be within (8) months from the commencement date (i.e., Letter of Award).**

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, there shall be granted subject to the provisions of paragraph 7.5 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 reduction of the price payable under the Contract. Such reduction shall be calculated at the rate of one half of one percent 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 reduction of (10) percent. Such reduction shall be allowed when a

payment becomes due on or after delivery. Save as provided in paragraph 7.5 hereof, such reduction 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 on 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 (90) days 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 the plant in respect of which the purchaser has become entitled to the maximum reduction 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 time 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. 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 plant 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 plant as could not in consequence of the Vendor's failure e put to the use intended.

7.6 If the purchaser fails to accept delivery on due date he shall nevertheless make any payment conditional in delivery as if the plant had been delivered. The Vendor shall arrange for the storage of the plant at the risk and cost of the purchaser, If required by the purchaser, the Vendor shall insure the plant 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 plant shall not be borne by the purchaser.

7.7 Unless the failure of the purchaser is due to any of the circumstances mentioned in Clause 9, the Vendor may require the purchaser by notice in writing to accept delivery within a 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 plant 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 plant, the delivery of which has not been accepted.

8. Terms of Payment:

8.1 Subject to any deductions 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 contractor shall be entitled strictly to payment as follows: -

i. **Ten (10) percent of contract value as advance payment** within sixty (60) days from the Contractor's correct application of payment (invoice) against submitting of the following:

- Receiving accepted Advance Payment Bank Guarantee in the form given for the same advance payment value and same contract currency.
- Receiving accepted Performance Guarantee as specified in Instructions to Tenderers.
- Commercial Invoice or payment request in two originals plus two copies.
- Interim payment certificate issued and signed by NEPCO in one original and two copies.

ii. **Seventy (70) percent of contract value as interim payment for shipment of material** within sixty (60) days from the Contractor's correct application of payment (invoice) supplemented with the following documents:

- Commercial Invoice in two originals plus two copies, showing commodity, description, quantity, unit price, total price and delivery base, reference to items as per schedule of prices.
- Interim payment certificate issued and signed by NEPCO in one original and two copies.
- Packing list in one original plus two copies.
- Bill of lading – two negotiables, three non-negotiable.
- Test certificates, two copies and /or shipping release issued and signed by NEPCO – two copies.
- Certificate of origin in one original and two copies.
- Vessel certificate less than 15 years old (Certificate).

iii. **Fifteen (15) per cent of contract value as interim payment for receipt at NEPCO's warehouses of material** within sixty (60) days from the Contractor's correct application for interim payment (invoice) supplemented with the following documents:

- Receipt of an invoice or payment request in one original and four copies for the correct amount.
- Receiving report issued and signed by NEPCO committee as evidence that the material has been received at NEPCO's warehouses in satisfactory condition.
- Interim payment certificate issued and signed by NEPCO.

iv. **The remaining Five (5) percent of contract value will be paid against the interim certificate to the Contractor after 60 days from the date of expiring of the maintenance period** or (depends on the employer approval) against the submitting of maintenance bond of (5%) of the Contract amount, for the purpose of replacement and\or adjustment of defective material.

Submission of shipping Documents & Invoices:

Shipping documents must be submitted early for clearance purposes. Shipping documents shall be submitted to the bank if payment made by CAD or LC. If payment is through bank transfer the shipping documents shall be submitted directly to NEPCO as specified.

Shipment:

Shipment by sea freight must be on direct and regular (liner) vessel less than 15 years old at the time of shipment. The vessel shall be classified and certified in accordance with the (ISM) code and shall be a member in the P&I club.

If the Contract has been terminated the claim for termination costs shall be accompanied by:

1) Written justification by Contractor supporting in detail the claimed charge.
2) Either written concurrence by the Employer to the Contractor's claim or a certified copy of an arbitration award.

If the Contractor claims payment for suspension of the works the claim for suspension costs shall be accompanied by:

1) Written justification by the Contractor supporting in detail the claimed charge.
2) Either written concurrence by the Employer to the Contractor's claim or a certified copy of an arbitration award.

8.2 All bank charges, commissions and expenses inside and outside Jordan are to be for the vendor account.

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 affected. 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 **(12) months after receipt of last consignment at NEPCO's warehouses.**

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 plant as are expressly mentioned in the Contract. The Guarantee Period shall be such other period (if any) as specified in respect of each of such parts.

9.5 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.

9.6 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 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.

9.7 The guarantee Period is based on the continuous use of the plant in service for 24 hours every day.

9.8 The Vendor shall bear all the costs and risks of the transport of defective parts or equipment's and their replacements.

9.9 Where, in pursuance of paragraph 7 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.

9.10 Defective parts replaced in accordance with this Clause shall be placed at the disposal of the Vendor.

9.11 If the Vendor refuses to fulfil his obligations under this Clause or fails to proceed with due diligence after being required to do so, the purchaser may proceed to do the necessary work at the Vendor's risk and expense.

9.12 The Vendor's liability does not apply to defects arising out of materials provided, or out of a design stipulated, by the purchaser.

9.13 The Vendor's liability shall apply only to defects that appear 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 Plant has passed in accordance with Clause 6. In particular it does not cover defects arising form 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.

9.14 Save as in this Clause expressed, the Vendor shall be under no liability in respect of defects after the risk in the plant 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 circumstances of the case that the Vendor has been guilty of gross misconduct.

9.15 "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 ensure, or a deliberate disregard of any consequences of such act or omission.

9.16 A fresh guarantee period equal to that stated in paragraph 2 hereof shall apply, under the same terms and condition as those application to the original plant, to part supplied in replacement of defective part or to part renewed in pursuance of this clause this provision shall not apply to the remaining part of the plant, the guarantee period of which shall be extended only by a period equal to the period during which the plant is out of action as a result of defect covered by this clause.

10. <u>Relief's:</u>

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 restriction 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 obligations by the parties, are defined in Clauses 7 and 8. Save as provided in paragraphs 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 party 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 obligations, 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 plant 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 fails to do so, the party guilty of the breach may claim a reduction in the damages.

12. Rights At Termination:

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

13. 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. One arbitrator shall be nominated by the Purchaser and one by the Contractor, and the third arbitrator shall be appointed by both parties.

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.

13.2 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's 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.

14. Declaration for Prohibited Payments

A. The tenderer shall represent and warrant to The Employer in the Declaration for Prohibited Payments attached to this Tender, that no direct or indirect commissions, consulting fees, Tender fees or other payments, and no inducements or the giving of anything of value, (collectively referred to as "Prohibited Payments"), have been made or promised to be made, directly or indirectly, by or on behalf of the Contractor, its sub-Contractors and its or their employees, agents or representatives, to The Employer including without limitation any official, employee, agent or representative (whether or not acting in an official capacity) of The Employer, in connection with the solicitation, bidding, negotiation, award or performance of this Contract; and hereby covenants and agrees that no Prohibited Payments shall be made or promised to be made, directly or indirectly, by or on behalf of the Contractor, its sub-Contractors and its or their employees, agents or representatives, to any official, employee, agent or representative (whether or not acting in an official capacity) of The Employer in connection with the amendment, modification, renewal, extension or performance of this Contract.

B. In the event of any violation or breach of the provisions of paragraph A of this clause, The Employer at its sole option and discretion shall take all or any of the following Actions: (i) terminate the Contract; and /or (ii) deduct from all or any payments due to the Contractor under this Contract an amount equal to two times the amount of any Prohibited Payment; and/or (iii) demand that the Contractor pay forthwith to the Employer, which demand the Contractor hereby irrevocably agrees to honour, an amount equal to two times the amount of any Prohibited Payment, it being the intention, subject to paragraph D below, that the aggregate of all amounts to which The Employer is entitled under paragraph B shall not exceed the amount which is two times the amount of all Prohibited Payments.

C. The Tenderer agrees that provisions substantially similar (but in no event less restrictive) to paragraphs A and B above shall be incorporated by the Contractor in all agreements with the Contractor's Sub-Contractors, suppliers or contractors arising out of or relating to this Contract, and which provisions shall also expressly provide that the same may, at The Employers sole discretion, be enforced directly by The Employer. The Tenderer further agrees promptly to supply to The Employer true and complete copies of such agreements, forthwith upon entering into by the Contractor of such agreements.

D. The rights and remedies of The Employer under this clause are in addition to and not in derogation of any other rights The Employer may have under applicable law or regulations.

E. This clause shall survive the termination of the Contract.

15. Declaration for other Payments

A. The Tenderer shall fully disclose in the Declaration for Other Payments attached to this Tender any and all direct or indirect commissions, consulting fees, agent fees, tenders fees or other payments, or inducements or the giving of anything of value (collectively referred to as "Other Payments") to third parties other than any official employee, worker, representative or agent of The Employer, including without limitation a detailed description of the basis therefore, made or to be made, directly or indirectly, by or on behalf of the Contractor, its sub-contractors and its or their employees, agents or representatives, in connection with the solicitation, bidding, negotiation, award or performance of this Contract, and hereby covenants and agrees promptly to disclose to The Employer in writing the existence of any Third Party Payments including without limitation, a detailed description of the basis therefore, upon the earliest to occur of the Contractor making or being obligated to make, any such Third Party Payments.

B. In the event of any violation or breach of the provisions of paragraph A of this clause, The Employer at its sole option and discretion shall take all or any of the following Actions: (i) terminate the Contract; and /or (ii) deduct from all or any payments due to the Contractor under this Contract an amount equal to two times the amount of any Third Party Payments; and/or (iii) demand that the Contractor pay forthwith to the Employer, which demand the Contractor hereby irrevocably agrees to honour, an amount equal to two times the amount of any Third Party Payments, it being the intention, subject to paragraph D below, that the aggregate of all amounts to which The Employer is entitled under paragraph B shall not exceed the amount which is two times the amount of all Third Party Payments.

C. The Tenderer agrees that provisions substantially similar (but in no event less restrictive) to paragraphs A and B above shall be incorporated by the Contractor in all agreements with the Contractor's Sub-Contractors, suppliers or Contractor arising out of or relating to this Contract, and shall also expressly provide that the same may, at The Employers sole discretion, be enforced directly by The Employer. The Contractor further agrees promptly to supply to The Employer true and complete copies of such agreements, together with evidence of their inclusion in such agreements, forthwith upon entering into by the Contractor of such agreements.

D. Nothing in this Section shall expressly or impliedly make lawful or permissible any Third Party Payments that are otherwise prohibited under applicable law or regulations. The rights and remedies of The Employer under this clause are in addition to and not in derogation of any other rights The Employer may have under applicable law or regulations.

This clause shall survive the termination of the Contract.

16. Force Majeure:

16.1 A Party's failure or delay in performing any of its obligations under this Contract will not be deemed a breach of this Contract to the extent that such failure or delay is directly due to any Force Majeure Event.

16.2 For the purposes of this Clause, "Force Majeure Event" means an event or situation beyond the control of a Party that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of a Party. Such events may include, but are not limited to, acts of a Party in its, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

16.3 If a Force Majeure Event arises, the affected Party shall promptly notify the other Party in writing of such condition and the cause thereof. Unless otherwise directed by the other party in writing, the affected Party shall continue to perform its obligations under the Contract as far as is reasonably practicable, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure Event.

Section 5

Technical Specifications

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

TECHNICAL SPECIFICATIONS

1. GENERAL CLAUSES

1.1. Scope of work

This Specification provides for the design, manufacture, testing at factory, packing for export, supply CFR Aqaba Docks - Jordan, and guarantee for a period of 12 calendar months from the date of receipt the last consignment of 400kV & 132kV composite insulators at NEPCO's warehouses.

1.2. Insulator's type and material:

The required 400 kV and 132kV insulators shall be Composite, tension & suspension insulator - long rod type, and should be equipped with **corona rings at both ends**.

The composite long rod shall be sound and free from defects which may affect the performances or the life of the insulator.

2. PHYSICAL CHARACTERISTICS AND GENERAL REQUIREMENTS:

Tenderers are requested to fill and submit all technical and price schedules for the tension & suspension insulators of total minimum creepage path of 5510 mm for 132 kV insulators and 15960 mm for 400 kV insulators as specified.

2.1. Composite insulator

2.1.1. Composite Insulator shall consist either of individual sheds mounted on the core, with or without an intermediate sheath, or alternatively, of a housing directly molded or cast in one or several pieces on to the core.

All surfaces of metal parts shall be smooth with no projecting points or irregularities which may cause corona. The metal parts shall be resistant to the effect of acid, salts or alkali dust and sand to which it may be exposed in the atmosphere. All insulators shall be designed to withstand the fault currents show in Data Schedule.

2.1.2. Core of a composite insulator: it shall be designed to ensure the mechanical characteristics.

The insulator core has to be an epoxy resin rod with high strength axial glass fiber reinforcement (Fiber Reinforced Plastic Rod). Glass fibers and resin must be optimized with regard to mechanical strength and moisture absorption.

2.1.3. Core diameter: the core diameter shall be either: the geometric diameter of a core of circular section, or, $2\sqrt{(A/\pi)}$ for a core with non-circular cross section of area A.

2.1.4. Housing and shed of a composite insulator: it shall provide the necessary creepage distance and protect the core from the weather. An intermediate sheath made of insulating material is a part of the housing.

The material for the housing must be Silicone Rubber, the only material that has shown a long-term hydrophobicity in service.

To simultaneously achieve an excellent pollution performance as well as a tracking performance of the housing, the use of HTV (High Temperature Vulcanizing) silicone rubber filled with an appropriate amount of ATH (aluminum tri hydrate**) is mandatory**.

The characteristically properties of such a Silicone Rubber are as follows:

- Density: (1.3 ~ 1.55) g/cm3
- Passing Voltage Level of IEC 60587: (4.5 and 6 kV)
- Flammability Class of IEC 60695-11-10 of 3 mm Specimen: V0
- Tear Strength (ISO 34-1): > 10 N/mm
- Elongation at Break (DIN 53504-S1): > 200 %

The use of other silicone rubber grades such as LSR (Liquid Silicone Rubber) or RTV (Room Temperature Vulcanizing) as well as EPDM (Ethylene Propylene Diene Monomer**) is not permitted**.

A shed shall be a projecting part of the housing intended to increase the creepage distance. The shed design must be in accordance with IEC 60815 and a flat, aerodynamic alternating shed profile is required (sheds with rips are not accepted in order to avoid the accumulation of dirt). Recently published guides recommend that a creepage factor of 3.5 should not be exceeded to prevent ineffectiveness of creepage distance.

2.1.5. Interfaces of composite insulator: an interface will be the surface between the different materials or parts of the composite insulator.

Various interfaces occur in most composite insulators, e.g.:

- Between glass fibers and impregnating resin;
- Between filler particles and polymer.
- Between core and housing.
- Between various parts of the housing; between sheds, or
- Between sheath and sheds;
- Between housing, core and metal fittings.

The interface formed between rod and housing must be of a high quality to prevent brittle fracture phenomena. The use of E-CR-glass fibers providing both high electrical strength and equivalent acid resistance is recommended for tensile-loaded applications.

Only Insulators with Silicone Rubber housing applied to the rod by injection moulding process are accepted. Using direct moulding, the mould line must be turned at least every meter by at least 60°. This prevents possible effects of a straight axial mould line. It is absolutely essential that the interface between housing and core is chemically bonded.

The thickness of the silicone rubber covering the rod must be at least 3 mm. The concentricity of the rod embedded in the Silicone Rubber housing has to be proven.

2.1.6. Connecting zone: zone where the mechanical load shall be transmitted between the rod and the metal fitting.

2.1.7. Coupling: the coupling shall be the part of the metal fitting which transmits the load to the accessories external to the composite insulator.

The insulators shall be equipped with hot dip galvanized steel end fittings applicable for Ball & Socket connection in compliance with IEC 60120. The end fittings must be made of forged high tensile strength quality steel. **Cast end fittings are not permitted**. The locking devices shall be made of stainless steel.

The end fittings have to be protected by means of over-molding or an additional corona shed.

2.1.8. Tracking: Tracking shall be an irreversible degradation by formation of paths starting and developing on the surface of an insulating material. These paths are conductive even under dry conditions. Tracking can occur on surfaces in contact with air and also on the interfaces between different insulating materials.

2.1.9. Treeing: treeing shall be an irreversible degradation consisting of the formation of micro channels within the material which can be conducting or non- conducting. These micro channels can progressively extend through the bulk of the material until electrical failure occurs.

2.1.10. Erosion: erosion shall be an irreversible and non-conducting degradation of the surface of the insulator that occurs by loss or material. This can be uniform, localized OR tree – shaped.

2.1.11. Chalking (flouring): chalking shall be the appearance of some particles of the filler of the housing material forming a rough of powdery surface.

2.1.12. Crazing: crazing shall be made of surface micro – fractures of depths approximately 0.01 mm to 0.1mm.

2.1.13. Crack: any surface fracture of depths shouldn't be greater than 0.1mm.

2.1.14. Hydrolysis phenomena: hydrolysis phenomena, due to water penetration in liquid form or as water vapor, can take place in the materials of the composite insulator which can lead to electrical and / or mechanical degradation.

2.1.15. Specified mechanical load (SML): the SML shall be the load specified by the manufacturer which is used for mechanical tests.

2.1.16. Routine test load (RTL): the RTL shall be the load applied to all assembled composite insulators during a routine mechanical test.

2.1.17. The housing should be made from high temperature vulcanized silicon rubber according to IEC 1109.

3. STANDARDS

The following or equivalent standards shall be considered in the design or testing of the offered insulators.

IEC 60815, IEC 60120, IEC 60060, IEC 60305, IEC 60372, IEC 60383, IEC 60437, IEC TR 60575, IEC 62217, IEC 61109, BS EN ISO 1461, IEC 61466.

The aforementioned standards shall be applied in part or whole to the offered insulators.

4. TESTING

Suspension and tension string of each shall be subject to the following tests in accordance with the provisions of IEC publications 60383, 60437 and 61109 or such other standards as may be approved: -

A. **Type test**: Third Party Type Test shall be according to IEC 61466, 60120, 61109, 60372 and other relevant standards. Type test reports may be accepted provided that tested insulator structure corresponds to the offered one. The submitted type test reports shall not be older than 15 years.

   Otherwise, Type Test will be conducted and witnessed by two inspectors from NEPCO's engineers at an approved testing laboratory, all costs for the tests will be incurred by the contractor according to paragraph (5) (Inspection as in technical specification) in tender conditions.

B. **Sampling test**: Factory Acceptance Tests shall be carried out (for each lot) in accordance with paragraph (5 – Materials Testing, in tender conditions) at the manufacturer's works according to IEC 61466, 60120, 61109, 60372, and other relevant standards.

C. **Routine test**: These tests shall be carried out at the manufacturer's works and as follows:

- Identification of the composite insulators.
- Visual examination.
- Mechanical routine test.

5. MARKING

Each insulator shall be marked with a durable and legible Supplier mark and year of manufacture as well as the rated combined guaranteed mechanical strength in kilo newton before galvanizing.

The guaranteed electro-mechanical strength and the type of the units in each crate shall be clearly marked on each crate in a waterproof medium.

6. TOLERANCES

The permitted tolerances are related to long rod, and have to meet the requirements according to IEC 61109. In accordance to the standards, the following tolerances are permitted for all dimensions excluding special requests:

$\pm (0.04 \times L + 1.5)$ when $L \leq 300$ mm

$\pm (0.025 \times L + 6)$ when $L > 300$ mm, limited to 50 mm

7. PACKING

All insulators shall be carefully packed in non-returnable crate for transport by sea, rail and road. Each crate shall contain only insulator units of the same type. Crate shall be of hexagonal or rectangular cross-section.

Crates shall be wooden and should be close-boarded. They shall be manufactured from sound seasoned softwoods and suitable for prolonged storage on site under the climatic conditions present and to prevent damage due to termite attack. They shall be steel-banded for additional strength at not less than three positions along their length.

Packing cases shall be strongly constructed and in no case timber less than 25mm in thickness is to be used. Crates shall be designed with internal struts or partitions to support the insulator and prevent insulator movement. Insulator shall be fitted with the retaining clips.

Aluminum, plastic or PVC, nameplate shall be fixed to each case and clearly marked with the following: -

- Contract No.
- Number and size of insulators.

All packing will be inspected before shipment.

8. COMPLIANCE WITH SPECIFICATION

Notwithstanding any description, drawings or illustrations which may have been submitted with the tender, all details other than those shown in the Schedule of Departures from the Specification will be deemed to be in accordance with the Specification and the standard specifications and codes referred to therein.

No departures from the Specification, except those shown in the Schedule of Departures and approved by the Employer, shall be made without the written approval of the Engineer.

9. VARIANCE WITH CONDITIONS OF CONTRACT

In the event of there being any inconsistency between the provisions of this Specification and the Conditions of Contract, the provisions of the Conditions of Contract shall prevail and shall be considered as incorporated in the Contract.

10. PLACES OF MANUFACTURE

The manufacturer and places of manufacture of the various portions of the Contract Works shall be stated in the Schedules.

11. DATES FOR COMPLETION

The dates of readiness for delivery and completion of the various Sections of the Contract Works shall be as stated in the Schedules.

12. LANGUAGE AND SYSTEM OF UNITS

The English language shall be used in all written communications between the Employer the Engineer and the Contractor with respect to the services to be rendered and with respect to all documents and drawings procured or prepared by the Contractor pertaining to the work, unless otherwise agreed by the Engineer.

It is required that all equipment labels or plates and the Operating and Maintenance Instructions be written in English.

The design features of all equipment shall be based on the SI system of units.

13. COMPLIANCE WITH REGULATIONS

All apparatus and material supplied, and all work carried out shall comply in all respects with such of the requirements of the Regulations and Acts in force in the country of the Employer as are applicable to the Contract Works and with any other applicable regulations to which the Employer is subject.

14. FIRE PRECAUTION

All apparatus, connections and cabling shall be designed and arranged to minimize the risk of fire and any damage which might be caused in the event of fire.

Section 6

Technical Schedules

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

MANUFACTURER TECHNICAL PARTICULARS AND GURANTEES

SCHEDULE NO. A1

132kV TENSION & SUSPENSION INSULATORS

Item No.	PARAMETER	DESCRIOTION
1.0	Tension & Suspension insulator string	Composite Insulators
1.1	Nominal voltage	132 kV
1.2	Dielectric Material	Composite HTV
1.3	Coupling Type	Ball and socket
1.4	Security Clip	Required
1.5	Type of core	E-CR-glass fibers
1.6	Corona rings	Required at both ends
1.7	Composite color	Grey
1.8	Type based on	IEC 60815
1.9	Specific Creepage	38 mm/kV
1.10	Minimum nominal Creepage Path	5510 mm
1.11	Maximum recommended working load	≥ 40 % of SML
1.12	Overall length of Tension string.	According to lengths in related table of required quantities
1.13	Overall length of suspension string.	According to lengths in related table of required quantities
1.14	Maximum RIV level on 300Ω resistance at 1 MHz	34 dB
1.15	Ultimate tensile strength UTS for Suspension string	**80 kN**
1.16	Ultimate tensile strength UTS for Tension string	**160 kN**
1.17	Min wet power frequency withstand voltage	275 kV
1.18	Min dry lightning impulse withstand voltage	650 kV

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

MANUFACTURER TECHNICAL PARTICULARS AND GURANTEES

SCHEDULE NO. A2

400kV TENSION & SUSPENSION INSULATORS

Item No.	PARAMETER	DESCRIOTION
1.0	Tension & Suspension insulator string	Composite Insulators
1.1	Nominal voltage	400 kV
1.2	Dielectric Material	Composite HTV
1.3	Coupling Type	Ball and socket
1.4	Security Clip	Required
1.5	Type of core	E-CR-glass fibers
1.6	Corona rings	Required at both ends
1.7	Composite color	Grey
1.8	Type based on	IEC 60815
1.9	Specific Creepage	38 mm/kV
1.10	Minimum nominal Creepage Path	15960 mm
1.11	Maximum recommended working load	≥ 40 % of SML
1.12	Overall length of Tension string.	According to lengths in related table of required quantities
1.13	Overall length of suspension string.	According to lengths in related table of required quantities
1.14	Maximum RIV level on 300Ω resistance at 1 MHz	100 µV
1.15	Ultimate tensile strength UTS for Suspension string	**210 kN**
1.16	Ultimate tensile strength UTS for Tension string	**210 kN**
1.17	Min wet power frequency withstand voltage	630 kV
1.18	Min dry lightning impulse withstand voltage	1425 kV

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. B.1

PARTICULARS OF 132KV SUSPENSION COMPOSITE INSULATORS WITH 5510 MM MINIMUM NOMINAL CREEPAGE PATH PER STRING

ITEM NO.	DESCRIPTION	REQUIRED	OFFERED
1.	Manufacturer & Unit Number.	Specify	
2.	Type of core	E-CR Glass Fibers	
3.	Type of housing and sheds	HTV	
4.	Number of sheds per string.	Specify	
5.	Outside diameter of the sheds (D1/D2) (mm)	Specify	
6.	Coupling type	ball & socket	
7.	Locking device	S.S split pin	
8.	Diameter of the core (mm)	Specify	
9.	Min. Thickness of Housing (mm)	Min 3 mm	
10.	Total length of Creepage path per string (mm)	Min 5510 mm	
11.	Dry lightning impulse voltage (kV)	650 kV	
12.	Dry switching impulse withstand voltage (kV)	550 kV	
13.	Wet power frequency withstand voltage (kV)	275 kV	
14.	Dry power frequency withstand voltage (kV)	275 kV	
15.	RIV level on 300Ω resistance at 1 MHz (dB)	34 dB	
16.	Galvanizing		
	- All components (µm)	min 85 µm	
	- Bolts, nuts and washer (µm)	min 55 µm	
17.	Outside diameter of the unit (mm)	Specify	
18.	Required Minimum failing load per complete set (KN)	**80 KN**	
19.	Actual minimum failing load per complete set (KN)	Specify	
20.	Maximum recommended working load (KN)	Specify	
21.	Required insulator pin diameter according to IEC 60120 (mm)	**16 mm**	
22.	Mass of unit (kg)	Specify	
23.	Unit Creepage Distance (mm)	Specify	
24.	Overall length of suspension string (between ball & socket) (mm)	According to lengths in related table of required quantities	

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. B.2

PARTICULARS OF 132KV TENSION COMPOSITE INSULATORS WITH 5510 MM MINIMUM NOMINAL CREEPAGE PATH PER STRING

ITEM NO.	DESCRIPTION	REQUIRED	OFFERED
1.	Manufacturer & Unit Number.	Specify	
2.	Type of core	E-CR Glass Fibers	
3.	Type of housing and sheds	HTV	
4.	Number of sheds per string.	Specify	
5.	Outside diameter of the sheds (D1/D2) (mm)	Specify	
6.	Coupling type	ball & socket	
7.	Locking device	S.S split pin	
8.	Diameter of the core (mm)	Specify	
9.	Min. Thickness of Housing (mm)	Min 3 mm	
10.	Total length of Creepage path per string (mm)	Min 5510 mm	
11.	Dry lightning impulse voltage (kV)	650 kV	
12.	Dry switching impulse withstand voltage (kV)	550 kV	
13.	Wet power frequency withstand voltage (kV)	275 kV	
14.	Dry power frequency withstand voltage (kV)	275 kV	
15.	RIV level on 300Ω resistance at 1 MHz (dB)	34 dB	
16.	Galvanizing		
	- All components (µm)	min 85 µm	
	- Bolts, nuts and washer (µm)	min 55 µm	
17.	Outside diameter of the unit (mm)	Specify	
18.	Required Minimum failing load per complete set (KN)	**160 KN**	
19.	Actual minimum failing load per complete set (KN)	Specify	
20.	Maximum recommended working load (KN)	Specify	
21.	Required insulator pin diameter according to IEC 60120 (mm)	**20 mm**	
22.	Mass of unit (kg)	Specify	
23.	Unit Creepage Distance (mm)	Specify	
24.	Overall length of tension string (between ball & socket) (mm)	According to lengths in related table of required quantities	

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. B.3

PARTICULARS OF 400KV TENSION / SUSPENSION COMPOSITE INSULATORS WITH 15960MM MINIMUM NOMINAL CREEPAGE PATH PER STRING

ITEM NO.	DESCRIPTION	REQUIRED	OFFERED
1.	Manufacturer & Unit Number.	Specify	
2.	Type of core	E-CR Glass Fibers	
3.	Type of housing and sheds	HTV	
4.	Number of sheds per string.	Specify	
5.	Outside diameter of the sheds (D1/D2) (mm)	Specify	
6.	coupling type	ball & socket	
7.	Required insulator pin diameter according to IEC 60120 (mm)	**20 mm**	
8.	Locking device	S.S split pin	
9.	Diameter of the core (mm)	Specify	
10.	Min. Thickness of Housing (mm)	Min 3 mm	
11.	Total length of Creepage path per string (mm)	Min 15960 mm	
12.	Dry lightning impulse withstand voltage (kV)	1425 kV	
13.	Wet switching impulse withstand voltage (kV)	1050 kV	
14.	wet power frequency withstand voltage (kV)	630 kV	
15.	RIV level on 300Ω resistance at 1 MHz (µV)	100 µV	
16.	Minimum corona extinction voltage (kV)	260	
17.	Galvanizing		
17.1	All components (µm)	min 85 µm	
17.2	Bolts, nuts and washer (µm)	min 55 µm	
18.	Outside diameter of the unit (mm)	specify	
19.	Required Minimum failing load per complete set (KN)	**210 KN**	
20.	Actual minimum failing load per complete set (KN)	Specify	
21.	Maximum recommended working load (KN)	Specify	
22.	Mass of unit (kg)	Specify	
23.	Unit Creepage Distance (mm)	Specify	
24.	Overall length of tension / suspension string (between ball & socket) (mm)	According to lengths in related table of required quantities	

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. C.1 (Lot1)

QUANTITY & LENGHTS OF 132KV COMPOSITE INSULATORS WITH 5510 MM MINIMUM NOMINAL CREEPAGE PATH PER STRING

ITEM NO.	DESCRIPTION	LENGTH IN (CM) (Between ball & socket)	QUANTITY (STRING)
1	132kv Single suspension insulator string for total creepage path of 5510 mm (with corona rings) (Coupling size 16mm)	145	200
		160	800
		180	100
		190	2350
SUBTOTAL (Suspension insulator strings)			**3450**
2	132kv Single tension insulator string for total creepage path of 5510 mm (with corona rings) (Coupling size 20mm)	180	100
		195	160
		235	500
		255	200
		280	225
SUBTOTAL (Tension insulator strings)			**1185**
Total schedule C.1 quantity (Suspension & Tension) / Lot1 (String)			**4635**

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. C.2 (Lot2)

QUANTITY & LENGHTS OF 400KV COMPOSITE INSULATORS WITH 15960 MM MINIMUM NOMINAL CREEPAGE PATH PER STRING

ITEM NO.	DESCRIPTION	LENGTH IN (CM) (Between ball & socket)	QUANTITY (STRING)
1	400kv Single tension / suspension insulator string for total creepage path of 15960 mm (with corona rings) (Coupling size 20mm)	448	140
		511	360
		459	100
Total schedule C.2 quantity (Suspension & Tension) / Lot2 (String)			**600**

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. D

MANUFACTURERS AND PLACE OF MANUFACTURE TESTING. INSPECTION. SHIPMENT AND STANDARDS FOR COMPOSITE INSULATORS

ITEM No.	DESCRIPTION	MANUFACTURER AND PLACE OF MANUFACTURE	PLACE OF TESTING AND INSPECTION	PORT OF SHIPMENT	STANDARDS
Lot1	132kv Composite, suspension & tension insulators. (Housing)				
	132kv Composite, suspension & tension insulators. (Core)				
Lot2	400kV Composite, suspension & tension insulators. (Housing)				
	400kV Composite, suspension & tension insulators. (Core)				

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. E

DATES FOR MANUFACTURE, TESTING AND DELIVERY

FOR COMPOSITE INSULATORS

This schedule must be completed by the Tenderer and the entered periods shall be binding to the contractor.

ITEM NO.	DESCRIPTION	COMMENCEMENT	COMPLETION EX-WORK	TESTING	DELIVERY CFR AQABA DOCKS
Lot1	132kv Composite suspension insulators of minimum nominal creepage path (5510 mm)				
	132kv Composite tension insulators of minimum nominal creepage path (5510 mm)				
Lot2	400kv Composite tension / suspension insulators of minimum nominal creepage path (15960 mm)				

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TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. F

DEVIATIONS OR EXCEPTIONS TO THE TENDER DOCUMETNS

Tenderers shall enter below all deviations from the Tender documents in sequential order. In the absence of any listed deviation, it is deemed that the Tender document requirements are fully complied with.

Clause No. in the Tender Document	Deviation

The Tenderer hereby confirms that, except for the deviations listed in this schedule, this proposal is fully in compliance with the Tender Documents.

Tenderer's signature and Stamp:

Date

Section 7

Price Schedules

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. G1 (LOT1)

QUANTITES AND PRICE 132KV INSULATORS

The following schedule shall be filled-in completely and without omissions by the tenderers and their manner and break-down may not be changed, however, this schedule may be supplemented by extra sheets, should that be necessary.

ITEM	Description	Qty	Unit	Price (Currency)	
				Unit price CFR (Aqaba Docks)	Total price CFR (Aqaba Docks)
1	132kv Single suspension insulator with corona rings & 145 cm length	**200**	String		
2	132kv Single suspension insulator with corona rings & 160 cm length	**800**	String		
3	132kv Single suspension insulator with corona rings & 180 cm length	**100**	String		
4	132kv Single suspension insulator with corona rings & 190 cm length	**2350**	String		
5	132kv Single tension insulator with corona rings & 180 cm length	**100**	String		
6	132kv Single tension insulator with corona rings & 195 cm length	**160**	String		
7	132kv Single tension insulator with corona rings & 235 cm length	**500**	String		
8	132kv Single tension insulator with corona rings & 255 cm length	**200**	String		
9	132kv Single tension insulator with corona rings & 280 cm length	**225**	String		
TOTAL PRICE FOR THE SCHEDULE G1 (Lot1)					

- **Prices shall be excluding all custom duties and sales tax.**
- **The Total Price of Schedule (G1) shall be including witnessing and inspection for (132KV insulators) by Employer's representatives (two inspectors) according to paragraph (5) (Inspection as in technical specification) in tender conditions.**

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. G2 (LOT2)

QUANTITES AND PRICE OF EQUIPMENT

The following schedule shall be filled-in completely and without omissions by the tenderers and their manner and break-down may not be changed, however, this schedule may be supplemented by extra sheets, should that be necessary.

ITEM	Description	Qty	Unit	Price (Currency)	
				Unit price CFR (Aqaba Docks)	Total price CFR (Aqaba Docks)
1	400kv Single tension / suspension insulator string (creepage path of 15960 mm) with corona rings & 448 cm length	**140**	String		
2	400kv Single tension / suspension insulator string (creepage path of 15960 mm) with corona rings & 511 cm length	**360**	String		
3	400kv Single tension / suspension insulator string (creepage path of 15960 mm) with corona rings & 459 cm length	**100**	String		
TOTAL PRICE FOR THE SCHEDULE G2 (Lot2)					

- **Prices shall be excluding all custom duties and sales tax.**
- **The Total Price of Schedule (G2) shall be including witnessing and inspection for (400KV insulators) by Employer's representatives (two inspectors) according to paragraph (5) (Inspection as in technical specification) in tender conditions.**

NATIONAL ELECTRIC POWER COMPANY
TENDER NO. 78/2026
SUPPLY OF 400KV & 132KV COMPOSITE INSULATORS

SCHEDULE NO. H

TOTAL TENDER PRICE

The following schedule shall be filled-in completely and without omissions by the tenderers and their manner and break-down may not be changed.

ITEM	Description			Price *(Currency)
				Total price CFR (Aqaba Docks)
Lot1	**Total price for 132kv insulator strings (creepage path of 5510 mm) with corona rings as required in technical specifications (Including witnessing and inspection by Employer's representatives - two inspectors)** **Schedule No. G1**			
Lot2	**Total price for 400kv insulator strings (creepage path of 15960 mm) with corona rings as required in technical specifications (Including witnessing and inspection by Employer's representatives - two inspectors)** **Schedule No. G2**			
TOTAL PRICE FOR THE TENDER				

* State Foreign Currency.

Total Tender Price (Say):

……
……

Note:

- The Total Price of Schedule (H) shall be including witnessing and inspection by Employer's representatives for each lot (two inspectors for 400kV insulators & two inspectors for 132kV insulators) according to paragraph (5) (Inspection as in technical specification) in tender conditions.
- The total Tender price should be filled the Form of Tender.
- Prices shall be excluding all custom duties and sales tax.