West Bengal State Electricity Distribution Company Limited

(A West Bengal Government Enterprise)
Gowalafatak 33/11 KV S/Stn. Campus, Naihati : 24-PGS.(N)
Registered Office: Bidyut Vhavan: Block-DJ, Sector-II, Bidhannagar,Kolkata-700091,
Corporate Identity Number (CIN):U40109WB2007SGC113473,
Website of the Company: www.wbsedcl.in
E-mail ID: dm.naihati@wbsedcl.in

NOTICE INVITING e-TENDER

NIT No: DM/NHD/ELECTRICAL/23-24/05 **Date: 07.02.2024**

The Divisional Manager, Naihati Division, WBSEDCL invites e-tender for from manufacturers/Distributors for sample approval, supply and delivery the following item as per schedule detailed below:

(Submission of Bid through Online)

Sl. No	Description of Materials	Materials code	Unit	Qty	Unit price	Estimated cost	Earnest Money	Delivery time
1	Ins. pierce Con. -ABC -50-70 Sq MM	0504026741	Nos	5000	88	4,40,000	8800.00	30 days

Scope: - The materials are procured for Naihati Division, The supply of the materials will be directly at Naihati Divisional Store. Necessary Challan, E-Way Bills are to be provided at Naihati Divisional Store

Intending bidders desirous of participating in the tender are to log on to the website https://wbtenders.gov.in for the tender. The tender can be searched by typing WBSEDCL in the search Engine provided in the website.

Date & Time Schedule

Sl. No.	Particulars	Date & Time
01.	Date of uploading of N.I.T and Tender Documents (online). [Publishing date]	**12.02.2024 after 12.00 hrs**
02.	Documents sell / download start date (online).	**12.02.2024 after 12.00 hrs**
03.	Bid Submission upload start date (online)	**12.02.2024 after 12:00 hrs**
04.	Bid Submission upload end date (online)	**27.02.2024 upto 11:00 hrs**
05.	Date of submission of original copies of Earnest Money Deposit	**On & from 18.02.2024 at 11:00 hrs to 20.02.2024 upto 11:00 hrs**
06.	Date for opening of Technical bid (online) for the Bidders	**29.02.2024 after 12:00 hrs**
07.	Date of uploading the Final List of Technically Qualified Bidders after Technical Bid Evaluation (online).	**To be intimated later**
08.	Date, for opening of Financial Bid (online).	**To be intimated later**

Bidders willing to take part in the process of e-tendering are required to obtain Digital Signature Certificate (DSC) in the name of person who will sign the tender, from any authorized Certifying Authority (CA) under CCA, Govt of India (viz. nCode Solution, Safescrypt, e-Mudhra). DSC is given as a USB e-Token. After obtaining the Class 2 or Class 3 Digital Signature Certificate (DSC) from the approved Certifying Authority they are required to register the fact of possessing the Digital Signature Certificates through the registration system available in the website.

Tenders are to be submitted online and intending bidders are to download the tender documents from the Website stated above. This is the only mode of collection of tender documents. Details of submission Procedure is given in "Instructions to Bidders".

Terms & conditions of the Tender Notice :

1. **Earnest Money Deposit** amounting to **2%** (Two Percent) of the Estimated Cost. As mentioned above, shall be submitted individually along with the offer. Necessary earnest money may be remitted through online mode of opted for BG, it may be submitted physically at Naihati Division. The scan copy of BG is to be uploaded by selecting offline mode.

2. The bidder shall submit **along with the offer** necessary documents in support of their previous supply. Of the items of the tender to WBSEDCL in earlier. Occasions and financial capabilities to the extent of the estimated financial amount of their offer.

3. No agent is allowed to participate in the Tender.

4. WBSEDCL reserves its right to take decision keeping its financial interest. The Purchase Policy of WBSEDCL along with the provisions of Vendor Rating & Holiday Listing, as effective from 01.09.2012 and the subsequent amendment effective from 18.03.2013 will be applicable.

5. If the offer is submitted without or inadequate Earnest Money, the bid will not be opened. In case of
   Incomplete offer, the tender will be liable for rejection and Earnest Money Deposit will be forfeited.

6. **One Unit Sample of Each Material is to be submitted at Naihati Divisional Store physically within the closing date of tender. The tag with the sample should contain the name of the sample as well as the name of the vendor/bidder, For a valid tender, sample has to be approved by the Divisional Authority. The approval or rejection of sample will be communicated via mail/electronically subsequently. The technical evaluation of the bidders, whose samples aren't approved, will not be opened & henceforth they will be deemed disqualified. Rejected Samples can be taken away. After LOA is awarded the awardees can adjust the sample with the delivered material lot & the remaining materials can be taken back by the respective vendors.**

7. The offer shall remain valid for a minimum period of 120 days from the next day of opening of theTender.

8. **The quoted rates should be inclusive of all taxes & duties, freight and incidental charges. The quoted rate should be excluding GST charges. GST will be paid as applicable.**

9. The ordered materials should be delivered within 30 days from the date of PO, otherwise, penalty may be imposed as per rule of WBSEDCL for delay of delivery of ordered materials.

10. The necessary documents along with bill are to be submitted at Naihati Divisional Office. The SRV will be issued from Naihati Divisional Store, WBSEDCL.

11. At the time of placing purchase order, the quantity mentioned in the Tender Document may vary upto +/- 25%.

12. Any evidence of unfair Trade Practices including over charging, price fixing, cartel etc. as defined in Various statutes will automatically disqualify the bidders.

13. The company reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever.

14. Any bidder against whom FIR/Complaint is lodged with Police by WBSEDCL/Other Utility/Govt. Semi Govt. or Govt. undertaking Dept. shall not be eligible to participate in the bidding process.

15. Other information as well as terms and conditions, which are not covered above, will be available in Instructions to Bidders, General Conditions of Contract of this tender and the Revised Purchase Policy of WBSEDCL.

16. TERMS OF PAYMENT:

a) 90% payment of bill will be made within 45 (forty five) days from the date of submission of bill against:
Original receipted Challan/Invoice signed by an officer in the rank JE-II ,Naihati Divisional Store attached to the respective stores. And

b) Balance 10% payment will be made within 45 (forty five) days of submission of bills along with SRV After expiry of warranty period.

17. WARRANTY PEFRIOD: Warranty Period of supplied material will be one year from the date of delivery of the said materials. In case of any adverse report from store or defect found in site, materials have to be replaced or it would affect the vendor rating.

18. PAYING AUTHORITY:

AM(F&A), Naihati Division, WBSEDCL, will be the Paying Authority.

19. CONSIGNEE:

The name of the consignee will be JE-I, Naihati Divisional Store.

20. LIQUIDATED DAMAGE FOR DELAY IN DELIVERY:

The time of delivery (successful offer for inspection) of the equipment/materials are to be treated as an essence of the contract and the WBSEDCL reserves the right to repudiate the contract, if the equipment / materials are not physically delivered within stipulated period as per physical delivery clause. But WBSEDCL may at his discretion waive this condition and accept the material with imposition of liquidated damage @ 1/2% of the Value of the materials beyond the schedule delivery period for each week of delay Subject to **maximum of 5%of the particular lot and accept the goods beyond the stipulated period**.

21. Any further information along with WBSEDCL's Revised Purchase Policy may be had from the Website**: www.wbsedcl.in** and the following office:

Office of the Chief Engineer (Procurement & Contracts),
West Bengal State Electricity Distribution Company Limited,
Vidyut Bhavan, 4th Floor,
Bidhannagar,Kolkata - 700091.
Phone No. 033-2319-7563

22. Documents to be submitted in Technical bid- Please refer sl no. 6.2 of "Instruction to Bidders" in Page 5 of NIT

23. The specifications of the item.
As per specification mentioned in BOQ

Instructions to Bidders

1. Eligibility for participation:

- Original manufacturers/Distributors of the tendered items will be eligible in the tender
- The bidders shall have credential for supply of the tendered items to WBSEDCL other Govt. Departments in earlier occasions within last three financial years.

2. General guidance for e-Tendering:

Instructions/Guidelines for electronic submission of the tenders have been mentioned below for assisting the bidders to participate in e-Tendering.

3. Registration of bidder:

Any bidder willing to take part in the process of e-Tendering will have to be enrolled & registered With the e-Procurement system, through logging on to https://wbtenders.gov.in.

4. Digital Signature certificate (DSC) :

Each bidder is required to obtain a class-II or Class-III Digital Signature Certificate (DSC) for Submission of tenders.

5. The bidder can search and download NIT & Tender Documents electronically from the website Mentioned in Clause 3 using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

6. Submission of Tenders:

6.1 General process of submission

Tenders are to be submitted online through the website https://wbtenders.gov.in. All the Documents uploaded by the Tender Inviting Authority form an integral part of the contract. Tenderers are required to upload all the tender documents along with the other documents, as Asked For, in the tender, through the above website within the stipulated date and time as given in the Tender. Tenders are to be submitted in two folders - one is Technical Proposal and the other is Financial Proposal. The tenderer shall carefully go through the documents and prepare the required documents and upload the scanned documents(credentials, certificates, EMD Draft/PO) in Portable Document Format (PDF) to the portal in the designated locations of Technical Bid. The bidder needs to download the BOQ, fill up the rates of items in the BOQ in the designated Cell and upload the same in the designated location of Financial Bid.

The documents uploaded shall be virus scanned and digitally signed using the Digital Signature Certificate (DSC). Tenderers should take note of all the addendum/corrigendum related to the tender and upload the latest documents as part of the tender.

6.2. Document to be submitted

i. Company Details:

ii. Certificates:

1) PAN Card details.
2) Current Professional Tax (PT) submission Chalan. Application for such Addressed to the competent authority may also be considered.
3) GST registration certificate.

iii. Financial Info :

Annual turnover for a period of the last three financial years.

iv. Credential:

1) Documents in support of supply of the tendered items to WBSEDCL, in earlier occasions within last five financial years as mentioned below:
    a. 1 No Purchase Order for completing delivery of the said materials having financial involvement of not less than 50% of the estimated value of the said item**(s). Or**

b. 2 Nos Purchase Order for completing delivery of the said materials having financial involvement of not less than 40% of the estimated value of the said item**/**item(s).

2) Self Declaration certificate as per Annexure 1. (mandatory format)

3) Others: Any other documents found necessary.

7. Conditional and incomplete tender:

Conditional and incomplete tenders are liable to summary rejection.

8. Validity of Tender and Offer:

The offer against tender should remain valid for a minimum period of 120 days from the next day Of opening of the tender. However, WBSEDCL may, on the merit of case, request for extension of validity of the offer for a further suitable period without any change in terms & conditions of the Offer.

9. Opening and evaluation of tender:

9.1 Opening of Technical Proposal

i. Technical proposals will be opened by the Tender Inviting Authority or his authorized Representative electronically from the website stated above, using their Digital Signature Certificate.
ii. Technical proposals for those tenders whose original copies of BG towards tender Fee or EMD have been received will only be opened. Proposals corresponding to which original copy of BG towards tender fee or EMD has not been received, will not be opened and will stand rejected.
iii. Intending tenderers may remain present if they so desire.

9.2 Techno-commercial Evaluation of Tender

i. While evaluation, the Tender Inviting Authority or his authorized representative may summon the tenderers and seek clarification / information or additional documents or original hard copy of any of the documents already submitted and if these cannot be produced within the stipulated timeframe, their proposals will be liable for rejection.

ii. The summary list of tenderers, whose bids will be found techno-commercially eligible, will be uploaded in the web portals. Date of opening of financial bid will be intimated to the Techno-commercially qualified tenderers.

9.3 Opening and evaluation of Financial Proposal

i. Financial proposals of the tenderers declared techno-commercially eligible, will be opened electronically by the Tender Inviting Authority from the web portal stated above on the prescribed date.

ii. The encrypted copies will be decrypted and the rates will be read out to the bidders remaining present at that time.

iii. After opening of the financial proposal the preliminary summary result containing interlaid, name of bidders and the rates quoted by them will be uploaded.

iv. The Tender Accepting Authority may ask any of the tenderers to submit analysis to justify the rate quoted by that tenderer.

10. Revision/withdrawal of Financial Proposal by the bidder after opening of Technical Proposal of the tender will not be allowed if it is not sought by the Tender Inviting Authority.

11. Acceptance of Tender

Lowest valid rate should normally be accepted. However, the Tender Accepting Authority does not bind himself to do so and reserves the right to reject any or all the tenders, for valid reasons.

12. Purchase Order

WBSEDCL will communicate acceptance of tender to the successful bidder by a Purchase Order. The successful tenderer shall communicate the acceptance of the purchase order.

13. Concession

No price preference will be allowed to any tenderer based on the size of the industry or its geographic location. Co-operative Society, will not be considered with separate status.

14. Holiday Listing and Vendor Rating

Holiday Listing & Vendor Rating will be applicable according to the "Holiday Listing & Vendor Rating" policies of the Revised Purchase Policy, which is posted in website of WBSEDCL (www,wbsedcl.in). Performance of the bidders, who supplied materials/equipment to WBSEDCL previously, will be evaluated for their Vendor Rating according to the said Vendor Rating policy and their Vender Rating will be taken into consideration at the time of evaluation of Technical and Financial Proposals of the tender.

15. Return of Earnest Money of the unsuccessful tenderer(s)

For return of the Earnest Money of the unsuccessful tenderer(s), he/she/they is/are to apply for the same to the Regional Manager, North 24 Parganas, WBSEDCL, giving the reference to the NIT No., date of tender, amount and mode of Earnest Money deposited – all in a complete form. The Earnest Money of all tenderers other than the successful tenderer(s) may be refunded, after issuance of Purchase Order to the successful tenderer(s).

Divisional Manager
Naihati Division
WBSEDCL

Annexure I

Self Declaration

I/We on behalf of …… (Name of bidder agency) do hereby declare that I/We have quoted rate for supply of the mentioned materials for the e-tender id **DM/NHD/ELECTRICAL/23-24/05** dt:07.02.2024

I/We also declare that I/We shall successfully complete the work in scheduled time maintaining the terms & conditions of Warranty of NIT Clause no. 17 if ranked as L1 bidder of the tender.

Yours faithfully,

Signature of authorized
Representative of the bidder agency
with official seal

Technical Specification of Insulation Piercing Connectors(IPC)

ln the process of replacing the Bare Conductors with LT AB Cables to reduce power theft & Transmission Losses, it is important to analyse the proper method of providing service connection from AB Cables to consumers without damaging the cable. Removal of Bare Conductor, Stringing of LT AB Cable & re-establishing the service connections should be simultaneous process.

In this regard the Insulating Piercing Connectors are required:-

a) For providing service connections from LT pole

b) For providing supply to Junction/ Distribution Box from AB Cable &

c) For establishing Tee connection from LT ABC to LT ABC.

d) For establishing system earthling with insulated messenger cum neutral wire wherever required. These Insulating Piercing Connectors should not be exposed to any bare conductor in the environment during connection. The connectors should be totally Weather & Moisture-proof so that no water or moisture can enter through the pierced holes onto the cable insulation. It must have Shear Head type mechanism to control the effective Torque during connection and to ensure perfect installation. Connectors should not have any losable parts, which may drop and then lost while installation at overhead conditions. For individual connectors Torque required for different conductor sizes should be mentioned in the equipment.

1.1. Insulation Piercing Connectors (IPC) are used for making Tee / Tap-off / Service connectors to an ABC / Bare Overhead Line.

1.2. Insulation Piercing Connectors are designed to make a connection between the uncut main conductor and a branch cable conductor without having to strip either cable to expose the conductor instead the tightening action of the lPC will first pierce the Insulation, then make good electrical contact between the main end and branch conductor while simultaneously insulating and sealing the connection.

1.3. Constructional Features of IPC

The connectors should be totally insulated with no loose parts. The connectors should be totally Weather & Moisture proof so that no water or moisture can enter through the pierced holes on the cable insulation.

1.3.1. The housing shall be made entirely of mechanical and weather resistant & UV resistant reinforced polymer insulation material and no metallic part outside the housing is acceptable except for the tightening bolt.

1.3.2. Any metallic part that is exposed must not be capable of carrying a potential during or after connector installation.

1.3.3. Screws or nuts assigned for fitting with IPC (Insulating Piercing connector), must be fitted with torque limiting shear heads to prevent over tightening or under tightening (min & max torque values to be specified by Manufacturer).

1.3.4. The lPC must perform piercing and connection on Main and Branch cable simultaneously.

1.3.5. The IPC shall be water proof and the water tightness shall be ensured by appropriate elastomeric materials and not by grease, gel of paste alone.

1.3.6. Design of lPC should be such as to not cause damage to insulation of adjacent conductors due to vibration and relative movement during service.

1.3.7. The connector shall have a rigid removable end cap which can be slide fitted onto the main connector body on either right or left by the installer (depending on site requirement) for sealing the cut end of the branch cable. Once the connector is fitted, it should not be possible to remove the cap without removing the connector.

1.3.8. All the metallic parts of the connector should be corrosion resistant and should be proven in Salt Fog chamber & Wet S02 gas chamber and there should not be any appreciable change in contact resistance & temperature after overloads & load eycling.

i. The contact plates should be made of Aluminium Alloy and for street light phase contact plates should be made of tinned copper

ii. Connector teeth should be factory greased & sealed to retard water or moisture ingress & corrosion.

iii. The Insulation material should be made of weather & UV resistant reinforced polymer.

iv. The outer metallic part should have potential free tightening bolts to allow safe installation on live lines.

1.4. Mechanical Tightening and Electrical Continuity

1.4.1. Connectors shall be tightened upto 70% of the minimum torque indicated by the Manufacturer. At this torque electrical contact should have occurred between conductors to be joined. Then connectors shall be tightened up to the breakdown of the shear heads and lastly, upto 1.5 times the maximum torque indicated by the manufacturer.

1.4.2. For the connector fitted with two screws on the same core, after the breakdown of the shear heads tightening may be carried out manually and alliteratively using a torque meter. The test conditions shall be as close as possible to those defined for the use of the test machine as per NF-C standard.

1.4.3. AI 1.5 times the maximum torque indicated by the manufacturer, there shall be no breakdown of any part of the connector or the core conductor.

1.4.4. Maximum rated to torque shall not exceed 20 Nm. for conductor< 95 sq mm and 30 N.m for >95 but <150 sq. mm.

1.5. Effect of Tightening on Main core of IPC

1.5.1. The connector shall be fitted approx. at the canter of the main core, which is secure between two anchoring points 0.5 mtr. to 1.5 mtr. apart. At the time of fitting the connectors, the main core shall be under longitudinal tension at 20% of the load indicated in Table-1 :

Table-1	
Nominal Cross-section (sq. mm.)	Tensile Strength (New Town)
16	1200
25	1800
35	2500
50	3500
70	5000

Tensile strain shall be increased to the full value indicated in the Table 1 and held minute.

There should be no breakdown of the core conductor.

1.6. Effect of Tightening on Branch Core of IPC

1.6.1. Test specimen shall be made up as in clause 1.5. Except that this shall be done the smallest cross sections of main and branch conductors within its range.

1.6.2. An increasing tensile load shall be applied to the Branch Conductor along the axis of the recess for the Branch cable. Load shall increase at 100 -500 N/minute until it reaches the value specified in the Table 2 and maintained for 1 minute.

Table-2	
Nominal Cross-Section (Sq. mm.)	Tensile StrengthZ(Newton)
16 (Alu)	290
25	450
35 & above	500

1.6.3. No slippage or breaking of conductor shall occur.

1.7. Dielectric & Water Tightness Test of IPC

1.7.1. The connector is tightened up to the minimum torque indicated by the manufacturer.

1.7.2. Connectors are mounted on

Minimum cross section of main core

Maximum cross section of main core.

1.7.3. In each case Branch is of minimum cross section.

1.7.4. Protection caps for the branch cable are to be used in accordance with the requirements of clause 1.3.7. An additional water tight cap of any design may be used to seal one end of the main cable if it is immersed under water. No additional gel or any protection is to be provided while installing connector.

1.7.5. The entire assembly shall be immersed at a depth of approx. 30 cms. for 30 minutes with the free ends of main and branch cable out of the water.

1.7.6. An AC voltage of 6 KV shall be applied between the water bath and each of the cores in turn for 1 minute. There shall be no flashover or electrical tripping with a trip setting of 10 mA ± 0.5mA.

1.8. **Electrical & Ageing Test of IPC**

1.8.1. Two test configurations are used according to Table 3 with the connections tightened to the minimum torque specified by their manufacturers and resistance recorded.

Table-3

Configuration	Main Core cross section	Branch Core cross section Tensile Strength (K.N)
1st Configuration	Maximum	Maximum
2nd Configuration	Maximum	Maximum

1.8.2. The Configurations are subjected to 200 heat cycles by injecting suitable current into them

In each cycle the temperature of the conductor shall be raised from ambient to 120 + 5°C as, measured by a thermocouple.

1.8.3. The duration of each heating cycle is chosen to maintain a sufficiently steady temperature of 120 + 5°C for 15 minutes. The duration of each cooling cycle is chosen to bring the conductor temperature to within 2 degree C of ambient.

1.8.4. Nominal heating current is indicated in the Table-4. It shall be permissible to accelerate the temperature rise by using a current up to 1.5 times the nominal current and to accelerate the Cooling period by use of a fan or air blower.

1.8.5. The over current test of Clause 1.9 shall be done after 50 cycles if the connector is a safety connector designed to ground a phase connector while the line is being worked on.

1.8.6. At the end of the 200 cycles the resistance shall again be measured. It shall rot differ from the initial value by more than 12%.

1.9. **Over Current Test of IPC**

1.9.1. Over current test is required to establish the performance of Safety Connectors that are intended to provide a safe path to ground for the phases while the line is de-energised for working. It establishes the performance of the connector under short term over load conditions.

1.9.2. After the first 50 cycles of clause 1.8, the connectors are .subjected to 4 over currents of 1 sec duration each.

1.9.3. The conductor temperature at the start of the over current test should be not more than 35 degree C.

1.9.4. Current density during over current shall be 100 A/sq.mm for Aluminium and 95 A/sq.mm for Aluminium -Alloy Conductor.

1.9.5. Variation in time of over current is permissible between 0.85 see & 1.15 sec., provided if maintains the relationship I^R=K where, I = rms value of over current in Amps. t = time in seconds K = Constant

1.9.6. After the overcurrent test the electrical ageing test of clause 1.8 shall be resumed.

1.9.7. According to NFC 33-020 -2013, clause 6.9: as a preliminary measure, it is ensured that resistance of the contacts is below 630uQ.1.10.

Test of IPC

1.10.1.Type Test Reports should be submitted from an Independent Laboratory of Repute or the Works Laboratory in case of a foreign manufacturer covering the following (on any convenient size of fitting of same design made from the same materials).

1.10.2. The installation of the connectors shall be done by the laboratory following instructions provided by the manufacturer.

1.10.3.The Test report shall record the embossing and marking on the connector.

NFC	Test	Type	Acceptance test
NFC 33-020;2013	Visual		yes
NFC 33-020;2013	Dimensional		yes
NFC 33-020;2013	Mechanical	yes	yes
NFC 33-020;2013	Shear head function's test and connector bolt tightening test	yes	yes
NFC 33-020;2013	Test for mechanical damage to the main conductor	yes	yes
NFC 33-020;2013	Branch Cable pull out test	yes	yes
NFC 33-020;2013	Dielectric voltage test and water tightness test	yes	yes
NFC 33-020;2013	Low temperature assembly test	yes	
NFC 33-020;2013	Climatic Ageing Test	yes	
NFC 33-020;2013	Corrosion Test	yes	
NFC 33-020;2013	Electrical ageing test	yes	
NFC 33-020;2013	Temperature Rise and Over Current Test	yes	yes