

TENDER FOR

Supply of 1.1KV XLPE INSULATED POWER CABLES (3.5C X 240 sq mm) for all S/dn under Surat Rural Division for release of LT connections in excess of 125 KW contract load.

**DAKSHIN GUJARAT VIJ CO. LTD.,
Surat Rural Division office, Nana Varachha Road,
"Opp Urja Sadan"Near Gajjar Petrol pump,
Kapodara,_Surat- 395 006**

IMPORTANT:

1. It is mandatory for all bidders to upload scanned copies of original (Notarized/ Self Attested copies of original- as specified in tender document) documents in online electronic forms (e-tendering) in scheduled time with bid and physical documents not required.
1. Bidders have to upload their tender/s documents in online electronic forms (e-tendering) <http://dgvcl.nprocure.com>
2. Bidder has to upload scanned copies of Original documents (in PDF form) remained legible and should not be password protected.
3. Validity of tender: 180 days from the date of opening of Technical Bid.
4. Payment of tender fee & E.M.D pay in RTGS/NEFT (Online) & copy of online receipt shall have to be uploaded with the bid in online.
5. Copy of GST Number and all other relevant documents for qualification must be carried out at the time of application of tender. All above documents must be attached online with tender form.
6. The LOI/AT may be issued with the existing clauses relating to Excise duty, sales Tax/VAT and statutory variations etc. with a disclaimer that "There shall be revisions with respect to the Prices as well as the clauses of these terms and conditions for which amendment shall be issued later on once it is Finalized. Besides it shall be stated that due to Excise Duty and statutory variation clauses and on account of anti-profiteering measure provision of GST, supplier/ contractor shall require to pass on the benefits of Input tax credit and reduction in taxes etc. to DGVCL. The detailed methodology for the same is under finalization and will be issued shortly for implementation. The above shall be binding on supplier / contractors".

All terms and conditions prescribed by the Company for work order will be applicable to this order.

The details specifications are for general guidance and should be followed. If there is any variation between description of schedule and the detailed specification, the former should be adhered to, otherwise the letter should be adhered to.

Any dispute is subject to Surat jurisdiction only.

EARNEST MONEY DEPOSIT (E.M.D.):

E.M.D. at the rate of 1% of the estimated cost (i.e. Rs.5000.00) is payable by online only to DGVCL, Surat Rural Division. Cheque are not acceptable.

Following important points pertaining to tender may be noted.

1) Qualifying Requirement of the Bidder:

- i) Bidder must have an experience of supply Contract of any Goods. Bidder has to submit order copy issued by the client, as a proof of experience in **last three years** with any type of goods supplied in any DISCOM of Gujarat and or other state DISCOM of India.
- ii) Bidder must have valid GST Certificate.
- iii) The bidder has to pay Tender fee compulsory.
- iv) The bidder has to pay EMD compulsory.
- v) Bidder will have to supply cables manufactured by DGVCL approved vendors having valid vendor registration certificate from any DISCOM/ GETCO/GSECL as per IS: 1554 (Part-1); 1988/IS 7098(Part-1) They have to submit copy of Govt approved/ NABL certified type test

reports not older than 5 years confirming mentioned IS standard. In case of third party supplier, bidder will have to submit authorization certificate to supply cable.

Tender fee and EMD should be paid, otherwise tender will not be considered.

Bank Detail:

Bank Name: Bank of Baroda

| Sr.no | Name | Account no. | IFSC Code |
|-------|--------------------------|----------------|-------------|
| 1 | DGVCL RURAL DIV SURAT | 93330200001026 | BARB0DBNVAR |

2) TERMS AND CONDITION:

The tenderers should thoroughly read all the following clauses before submitting their online bid. The original copy of the Tender documents Schedule – B duly signed tender documents, stamped with company's seal must be submitted along with the bid online.

1. The successful contractor will have to pay 10% in online mode in favour of DGVCL payable as security deposit before executing the work.
2. The delivery of the materials shall be given at F.O.R. D.G.V.C.L. Surat Rural Store, Nana Varachha Road, Surat or as per instruction of this office.
3. All the materials will have to be delivered within time limit or as early as possible. For any have delay beyond time limit allowed penalty at ½ % per week or part thereof on the order value for each week subject to maximum 10% of the order value be lived.
4. The materials should be of good quality and as per our standard specification/relevant IS (i.e. mentioned in price bid of respective items description) and requirement. If materials will be found defective due to bad quality of materials or workmanship the same will be rejected at your cost and risk and you will have to replace the same free of charge.
5. All goods should be insure for safe receipt up-to destination by supplier.
6. The supplier has to quote GST registration number & specify rate of GST
7. Company can place repeat order in urgent base up to 50% at the same rate and condition after placing of original order.

8. The time limit given in the tender form is inclusive of **approval of sample** hence no extra time will be given. The supplier has to produce **certificate** for the confirming the standard mentioned in schedule-B.
9. All general terms and conditions prescribed by company supply of materials will be applicable to the contractor/supplier.
10. The undersigned reserve to reject or accept any or all tenders without assigning any reason thereof.
11. The quantities shown in schedule are approximate and may be increased or decreased for which no claim will be entertained.
12. No tender shall be accepted/opened in any case after the due date and time of receipt of tender irrespective of delay due to postal services, or any other reasons and that the company shall not be order them assume any responsibility for late receipt tender.
13. The material delivery period will be remain thirty days from the date of issuance of order, early delivery accepted.
14. Income tax at source will be deducted as per Income Tax Rules & Regulation.
15. The supplier is governed under company's" booklet "Tender and supply items and all the condition there in will be binding to the supplier.
16. The Material Test Certificate to be provided of NABL / Government approved laboratory and test certificate should not be older than 5 years.
17. 100% payment will be made by the account payee cheque on execution of complete order and on receipt of material and inspection thereof.
18. If form of tender and schedule of rates are not signed by supplier, such tender will **not** be considered.

19. PRICES:

Prices quoted should be FIRM and on F.O.R. Destination basis (i.e. any office of the DGVCL Surat Rural Division office) The offered prices to be indicated strictly as per Schedule-B. No price variation will be given for supply of 240 mm² 1.1 KV XLPE cable.

20. STATUTORY VARIATION:

Any statutory increase or decrease in the taxes and duties excluding GST and Cess as applicable or in the event of introduction of new tax/cess or cessation of existing tax/cess subsequent to suppliers offer if it takes place within the original contractual delivery date will be to COMPANY'S account subject to the claim being supported by documentary evidence. However, if any decrease takes place after the contractual delivery date, the advantage will have to be passed on to company. Statutory Variation clause shall not be applicable in case of Supplier / Contractor has opted for Composition Scheme under GST.

21. SECURITY DEPOSIT:

As per prevailing rules of the Company, you have to pay 10% of contract value as security deposit in the form of online or DD issued by Nationalized/Schedule Bank in favour of DGVCL payable at Surat covers the entire contract period.

22.PAYMENT TERMS:

Payment will be done on quarterly basis. Successful Bidder will submit bill to the Engineer-In-charge of the DGVCL at the end of each quarter for work carried out during the quarter. Bill will be checked by Engineer-In-charge of DGVCL and processed for payment as per procedures of DGVCL. Along with the invoice successful bidder has to submit supporting documents as required by DGVCL.

23.Dispute Resolution Mechanism :For Procurement of Goods or Services and Non-Works Contracts,the following Arbitration clauses will be considered.

(1)Amicable Settlement :

Any dispute, difference, controversy or claim between the Parties arising out of or relating to this contract with reference to the construction, interpretation, breach, termination or validity there of (hereinafter referred as "the Dispute") shall, upon the written request of either Party be referred to the authorized representatives of the Disputing resolution. The authorized representatives shall promptly meet and attempt to negotiate in good faith a resolution of the Dispute within thirty days of the service of the request.

(2)Arbitration

If the Parties fail to amicably resolve the disputes or differences or contrary claims as indicated herewith in sub clause (1) of Clause, arising under or in connection with the present agreement, the same shall be referred to the Arbitration Centre (Domestic and International) High Court of Gujarat at Ahmedabad ("the Centre" for short), currently functioning in the High Court Complex, Sola, Ahmedabad for appointment of arbitrator and thereupon, the Centre shall appoint a sole arbitrator and conduct the arbitration proceedings in accordance with its rules. If the parties unanimously agree to appoint three arbitrators, then in that case, each party shall appoint one arbitrator from the panel of arbitrators of the Centre, and the Centre shall appoint the third arbitrator, who will act as the Presiding Arbitrator. Such arbitration shall be the sole and exclusive remedy between the parties for all disputes arising under or in connection with this agreement. The arbitration shall take place at the Arbitration Centre, Ahmedabad, High Court Complex, Sola, Ahmedabad, Gujarat, in accordance with the provisions of the Arbitration and Conciliation Act, 1996 as amended from time to time, and the proceedings shall be conducted in English. The arbitration award shall be final and binding on the parties.

24.AGREEMENT:

As per company's rule an agreement on stamp paper of appropriate value is to be done in the prescribed form as per ANNEXURE-I within 15 days from the receipt of the LOA/LOI. The conditions, specifications, price-schedule and contract work booklet are to be signed by the bidder. The agreement will be done at concerned circle offices.

TECHNICAL SPECIFICATION FOR 1.1kV XLPE INSULATED POWER CABLES

1. Scope

This specification covers supply and delivery in proper packed condition of 1.1kV voltage grade Aluminum Conductor, XLPE insulated, PVC sheathed, Armoured, screened Power Cable sgenerally conforming to the latest standard so FIS/IEC/BSor equivalent.

2. Service Conditions:

Equipment to be supplied against this specification shall be suitable for satisfactory continuous operation under the following tropical conditions.

- a) Maximum ambient temperature of air:50°C
- b) Maximum temperature of air in shade:4°C
- c) Maximum daily average ambient temperature:40°C
- d) Maximum yearly average ambient temperature:30°C
- e) Relative Humidity:upto 95%
- f) Average number of thunder storm days per annum:15
- g) Maximum annual Rainfall:150cm
- h) Maximum Altitude above mean sea level:1000Meter
- i) Maximum Wind Pressure:150Kg/cm²(As per IS802 latest code)
- j) Maximum soil temperature at cable depth:30°C
- k) Maximum soil thermal resistivity:150°Ccm/watt

3. Code & Standards:

All standards, specifications and codes of practice referred to herein shall be the latest editions including all applicable official amendments and revisions as on date of opening of bid. In case of conflict between this specification and those (IS: Codes, standards, etc.) referred to herein, the former shall prevail.

Nothing in this specification shall be construed to relieve the contractor of his responsibility. Where no standards are available, the supply items shall be good quality, workmanship and backed by test results.

The power cable shall conform to the latest applicable standards and codes of practice as mentioned in this specification. Other National Standard are acceptable if they are established to be equivalent to or superior to the listed standards subject to approval by the purchaser and the contractor shall provide English version of standards and codes applicable

The 1.1kV XLPE power cable shall conform to the currently applicable standards and codes of practice and reports as mentioned below table:

| S. No. | Title | IS Standard | IEC/BS Standard |
|--------|--|-----------------------|-----------------|
| 1 | Conductors for insulated electric cables and flexible cords. | IS:8130- 1984 | IEC60228-1978 |
| 2 | PVC insulation and sheath of electric cables. | IS:5831- 1984 | IEC60502 |
| 3 | Mild steel wires, Formed wires and Tapes for armoring of cables. | IS:3975- 1988 | |
| 4 | Fictitious calculation method for determination of dimensions of protective coverings of cables. | IS:10462(PartI)- 1983 | IEC60502:1978 |
| 5 | 1.1KV Grade XLPE insulated cables. | IS:7098(Part-I) | |
| 6 | Method of test for cables | IS :10810 | |
| 7 | Code of practice for installation & Maintenance of power cables upto & including 11 KV rating. | IS :1255 | |
| 8 | Drums for electric cables. | IS :10418 | |
| 9 | Electro Technical Vocabulary for Electric Cables | IS:1885,Part-32 | |

4. General Technical Requirements:-

(I) Armored cables:-

1100 Volts Grade L.T. cable with stranded H2/H4 grade aluminum conductor, XLPE insulated, color coded, laid up, with fillers and/or binder tape where necessary provided with extruded PVC inner sheath, single galvanized round steel wire / strip armored and provided with PVC outer sheath. All LT cable shall be conforming to IS : 5831 & IS : 8130 (amended up to date) and bearing ISI mark .

(II) Insulation, Inner sheath and Outer sheath:-

Insulation, inner sheath and outer sheath shall be applied by separate extrusion. Inner sheath shall be applied by extrusion only. Bedding of PVC tape for inner sheath is not acceptable. The color of the outer sheath shall be different according to the different size of cables and color of outer sheath shall be approved before manufacturing. The quality of insulation should be good and insulation should not be deteriorated when exposed to the climatic conditions.

The core insulation shall be with cross linked polyethylene insulating compound applied by extrusion & should be manufactured with Dry/Gas curing process. It shall be free from voids and shall withstand all mechanical and thermal stresses under steady state and transient operating condition. It shall conform to the properties given in Table-1 of IS: 7098(Part-2).

The conductor screen, XLPE insulation and insulation screen shall be extruded in one operation by “Triple Extrusion Dry. Cured” process to ensure perfect bonding between the layers. The core identifications shall be colored strips or by printed numerals.

The outer sheath of the cables shall be of PVC compound conforming to the armoring and shall be of PVC compound conforming to the requirements of Type ST2 compound of IS:5831 with suitable additives shall be provided (To prevent attack by rodent & termite). The thickness of outer sheath shall be as per amendment No. 1 to Table 5 of IS: 7098- part-2. The dimension of the insulation, inner sheath and armour materials shall be governed by values given in latest IS: 7098(pt.2)1958.

(III) Sequential marking of length on cable:-

Non erasable Sequential Marking of length shall be provided by embossing on outer sheath of the cable for each meter length.

(IV) Continuous AC current capacity:-

Continuous A.C. current capacity shall be as per Table given below.

| Conductor sizes insq.mm. | Continuous A.C.current capacity in Amps. | |
|-----------------------------|--|-------------|
| | In ground(Amps) | Inair(Amps) |
| 3.5CX240sqmm | 325 | 402 |

(V) Common Conductor Resistance and Short circuit current carrying capacity: -

| Nominal Areaof Conductor (Sq.MM) | Maximum DC resistance at 20 deg C (Ohms/kM) | Short Circuit Current for Conductor (KA/ Sec) |
|-------------------------------------|--|---|
| 240 | 0.125 | 22.56 |

(VI) Dimensional Details of Cable:-

| Typeof Cable | Nominal Thickness of Insulation (mm) | Minimum thickness of Inner sheath (mm) | Minimum thickness of Outer Sheath (mm) |
|--------------|--|--|--|
| 3.5CX240sqmm | 1.70 | 0.60 | 2.20 |

(VII) Storage and handling of cables:-

- a. All cables shall be inspected upon receipt at site and checked for any damage during transit. Cable drums shall be stored on a well-drained, hard surface, preferably of concrete, so that the drums do not sink in the ground causing rot and damage to the cable drums.
- b. It should be ensured that both ends of the cable are properly sealed to prevent ingress/absorption of moisture by the insulation. PVC / Rubber end caps shall be supplied free of cost for each drum. In addition, Ends of the cables shall be properly sealed with caps to avoid ingress of water during transportation and storage.
- c.
- d. The drums shall always be rested on the flanges and not on the flatsides.
- e. Damaged battens of drums etc. should be replaced, if necessary.
- f. For transportation over long distances, the drum should be mounted on cable drum wheels strong enough to carry the weight of the drum and pulled by means of ropes. Alternatively, they may be mounted on a trailer or on a suitable mechanical transport.
- g. When unloading cable drums from vehicles, a crane shall preferably be used. Otherwise the drum shall be rolled down carefully on a suitable ramp or rails, where necessary.
- h. The cables shall not be bent sharp to a small radius. The minimum safe bending radius for all types of XLPE cables shall be taken as 12 times the overall diameter of the cable. Wherever practicable, larger radius should be adopted. At joints and terminations, the bending radius of individual cores of a multi core cable shall not be less than 15 times its overall diameter.
- i. Cable with kinks and straightened kinks or with similar apparent defects like defective armoring etc. shall be rejected.
- j. The cables shall be suitable for laying in trenches, ducts, and conduits and for underground buried installation with uncontrolled backfill and possibility of flooding by water and chemicals.
- k. Outer sheath of all PVC and XLPE cables shall be Black in Color so as to have UV protection and designed to afford high degree of mechanical protection & shall also be heat, oil, chemical & weather resistant. The cable sheath also suitable to protect against rodent and termite attack.
- l. Sequential marking of length of the cable in meters shall be provided on the outer sheath at every one meter. The embossing/engraving shall be legible and indelible.
- m. The overall diameter of the cables shall be strictly as the values declared in the technical information furnished along with bids subject to a maximum tolerance of +2&-2mm up to overall diameter of 60mm & +/-3mm for overall diameter beyond 60 mm.

(VIII) Drums

Cables shall be supplied in the drums made from eco-friendly material in the specified length. The Drums shall be strong, weatherproof and non-returnable. The ends of the cable shall be sealed by means of non-hygroscopic sealing material. Applicable Length of Cable/ drum should be as per IS.

Over all tolerance in total quantity of ordered cables shall be +/-2%.

General

- All cables shall be suitable for installation in air, conduits, ducts, and open concrete trenches or for direct burial in either wet or dry locations for normal operating conditions.
- All cables shall be flexible and easy to bend,pull,handle and install.

(IX) Installation (Laying in trench):-

General:

The cable installation including necessary termination shall be carried out in accordance with the specifications given herein and IS 1255.

GENERALCONSTRUCTION

5. PACKING AND MAKING

Cables shall be dispatched in non-returnable wooden drums of suitable barrel diameter, securely battened, with the take-off end fully protected against mechanical damage. The wood used for construction of the drum shall be properly seasoned, sound, and free from defects. Wood preservatives shall be applied to the entire drum. Ferrous parts used shall be treated with a suitable rust preventive finish or coating to avoid rusting during transit or storage.

On the flange of the drum, necessary information such as project title, manufacturer's name, type, size, voltage grade of cable, length of cable in meters, drum number, cable code, BIS certification mark, gross weight, etc. shall be printed. An arrow shall be printed on the drum with suitable instructions to show the direction of the drum.

6. TEST REPORT:

Successful bidder have to supply cable (tender item) manufactured by DGVCL approved vendors having valid vendor registration certificate as per IS: 1554 (Part-1): 1988/IS 7098(Part-1) They have to submit notarized copy of Govt approved/ NABL certified type test reports not older than 5 years.

PLACE:

DATE:

SIGNATURE OF TENDERER & ROUND SEAL

**Exe. Engineer (O&M),
DGVCL ,Surat (Rural) Division.**