

# UGVCL

UTTAR GUJARAT VIJ COMPANY LIMITED  
REGISTERED OFFICE, VISNAGAR ROAD, MEHSANA-384001

## Tender for Supply of Readymade PSC Poles 10 Mtr./270Kgs. for UGVCL.

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Tender Fee Receipt No. & Date: \_\_\_\_\_

Demand Draft No& Date: \_\_\_\_\_Name of Bank & Branch

Earnest Money Deposit Receipt No. & Date: \_\_\_\_\_

Demand Draft No.& Date: \_\_\_\_\_

Issued by \_\_\_\_\_ Bank &Branch.

The undersigned reserves the right to reject any or all the tenders without assigning any reasons thereof. Conditional tender will not be considered.

Chief Engineer (Operation)  
UGVCL. Mehsana

# UGVCL

UTTAR GUJARAT VIJ COMPANY LIMITED

REGISTERED OFFICE: VISNAGAR ROAD: MEHSANA-380 001

Phone Nos.:(02762)222080-81 Fax: (02762)223574. Website:www.ugvcl.com

## **TENDER NOTICE NO: UGVCL/C&IT/PSC Poles /10 MTR/81/2010-11**

**Sub: Tender for manufacture and supply of readymade, Pre-Stressed Concrete (PSC) Poles 10M/270 Kg. for UGVCL.**

CE (Operation) invites on line tenders for supply of 10 Meters/ 270 Kg readymade PSC Poles.

### **DETAILS OF TENDER ITEMS TO BE PROCURED:**

Purchase of 10 meter/ 270kg, working load Readymade Pre-Stressed Concrete (PSC) Poles for the year 2010-11 and 2011-12 for UGVCL (as per drawing enclosed). Total Qty (Whole UGVCL) 19,500 Nos.

### **BRIEF DETAILS REGARDING TENDER IS AS UNDER:**

Tender No.	<b>UGVCL/C&amp;IT/PSC Poles 10M/81/2010-11</b>
Tender Fees (Non-Refundable)	Rs.10,000=00
Estimated Value of Tender	<b>Rs. 4,49,47,500</b>
Earnest Money Deposit Payable	Rs.2,30,500.00
Pre bid Meeting on	25-06-10 at 12.00 Hrs
Last date & time of physical receipt of tender. (Technical bid).	05-07-10 up to 14.00Hrs.
Last date of On-Line Tender Submission.	05-07-10 up to 16.00Hrs.
Date and time of opening of the physical technical bid opening	05-07-10 at 16.30 hrs (If possible)
Date and time of opening of on- line technical bid opening.	05-07-10 at 17.00 hrs (If possible)
<b>Tentative</b> Date of On line Opening of Price Bid.	09-07-10 at 12.00 hrs( If possible)

Tender fee will be accepted in CASH (at UGVCL, Corporate Office, Mehsana, Cash counter) /Demand draft drawn on any Scheduled/ Nationalized Bank situated at Mehsana drawn in favour of Uttar Gujarat Vij Company Ltd. (Cheques are not accepted). Tenders submitted without tender fee will not be considered.

### **Earnest Money Deposit (EMD) is to be paid as under:**

E.M.D. at the rate as specified above i.e. Rs. 2, 30,500.00 per bidder is payable. The EMD is payable 100% by Demand Draft in favour of UGVCL on any Scheduled / Nationalized Banks in Mehsana.

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Where ever Bank Guarantee(s) is/are to be submitted towards EMD/SD/Performance Guarantee against warrantee etc. UGVCL would accept Bank Guarantee issued by following banks instead of BG from scheduled banks.

(i) All public sector banks.

(ii) Private sector banks authorized to undertake Government businesses which are IDBI bank; Axis Bank; HDFC bank & ICICI bank.

(iii) The Kalapur Commercial Co-op Bank Ltd.

**Bank other than above banks will not be accepted.**

Cheques are not acceptable. Corporate Bank Guarantees Not Allowed.

Small Scale Industries will, however, be considered for exemption from payment of EMD subject to furnishing of the authenticated notary certified copy of the certificate of Registration with Small Scale Industries. The SSI / NSIC certificate should indicate the manufacture of items offered under this tender. Provisional SSI Registration Certificates are NOT allowed.

Government or Semi-Government Organizations, which are run departmentally & are not limited Companies, will be eligible for exemption from payment of E.M.D.

Tender Papers & Specifications may be down loaded from web site <http://www.ugvcl.nprocure.com> (For view, down load and on line submission) and UGVCL web site [www.ugvcl.com](http://www.ugvcl.com). (For view & download only) Tender fee may be paid along with submission of tender in EMD cover.

All the relevant documents of tenders to be submitted physically will be received only by Registered Post A.D. or by Speed Post addressed to the Chief Engineer (Operation), UTTAR GUJARAT VIJ COMPANY LTD., Corporate Office, Visnagar Road, Mehsana- 384001. “NO COURIER SERVICE OR HAND DELIVERY” will be allowed.

The tender documents should reach the office on or before date and time mentioned. No tender shall be accepted /opened in any case after due date and time of receipt of tender irrespective of delay due to postal services or any other reasons and that UGVCL shall not assume any responsibility for late receipt of the tender.

**A pre-bid** meeting shall be arranged **on. 25-6-10 @ 12.00 hrs** in the conference room of UGVCL Corporate office. Bidders desirous of seeking any clarification shall have to submit their written query at least two days in advance of the meeting.

Any technical questions, information and clarifications that may be required pertaining to this enquiry should be referred to the Chief Engineer (Operation), UGVCL Corporate office, Visnagar Road, Mehsana- 384001 The participant at the meeting shall have to furnish authority letter issued by the authorized signatory of the bidding firm.

No Interest will be allowed against payment of Earnest Money Deposit.

Copy of Money Receipt or DD for payment of tender fee & EMD must be placed in the cover super scribing “Tender fee & EMD” along with requisite documents as mentioned in the EMD condition. (EMD and Tender Fee cover should be kept as separate enclosure & should be submitted with Technical Bid.)

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The tender document is to be submitted in two parts in **single copy** super scribing tender number and name of tender as “Tender fee & EMD” cover and “Technical & Commercial bid” cover which includes commercial terms & conditions with all enclosures of the tender documents.

Bidders shall submit **Price Bid On-Line only** and **not in physical form**.

### **[1] TECHNICAL AND COMMERCIAL BID:**

The technical and commercial bid shall comprise all the technical details of the equipments / stores / materials offered in accordance with the UGVCL specifications / drawings, guaranteed technical particulars and all the commercial terms and conditions.

The Physical Technical Bid and On-line technical bids shall be opened on date and time as mentioned in previous Para.

**No representative shall be required** to be present **at** the time of the **technical bid opening**.

Please note that the required documents should be invariably submitted with tender copy. Any tender without documents is liable to be ignored.

The tender bid will be rejected out rightly without entering in to any further correspondence in this regard and no further reference will be made.

Small Scale industries shall be exempted from payment of EMD subject to furnishing a notarized copy of the SSI/NSIC certificate. The SSI/NSIC certificate should indicate the manufacture of items offered under this tender. Provisional SI certificates shall not be allowed.

(B) List of orders executed in the last three (3) financial years prior to date 01.04.2010 i.e. for F/Y 2007-08 , 2008-09 & 2009-10(including supplies made to UGVCL.) for the tendered items. (Under annexure-V)

C) Vendor Registration Certificate.

### **[4] Following documents only are to be submitted in physical form.**

[A] Tender fee and EMD cover:

Proof of Tender fee, DD for Earnest Money Deposit (EMD), Vendor Registration document & List of orders executed.

[B] Technical & Commercial Bid cover:

- (i) Annexure 1 to 10 in chronological order only.
- (ii) Guaranteed Technical Particulars & Drawings.
- (iii) Notarized abridged copy of balance sheet for last 3 years.
- (iv) Certified copies of ISO certificate, Factory License, EPF Regn. No.
- (v) Schedule – A

UGVCL reserves the right to reject any OR all tenders without assigning any reasons thereof.

Chief Engineer (Operation)  
UGVCL, Mehsana.

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## INSTRUCTION TO THE TENDERERS

**Downloading of Tender Documents (in PDF Format).** For downloading of Tender Please Click on Links: <http://www.ugvcl.nprocure.com>

Part -I	<b><u>TECHNICAL AND COMMERCIAL BID</u></b>
Part-II	<b><u>PRICE BID</u></b>

To view the PDF file please use “Acrobat Reader” software which can be downloaded from “Adobe” website

### **SCHEDULE - ‘A’**

1.	Tender No.	<b>UGVCL/C&amp;IT/PSC Poles 10M/81/2010-11</b>
2	Tender Fees	<b>Rs.10,000=00 [Rupees Ten Thousand only] Non Refundable.</b>
3	EMD Payable	Rs. 2,30,500.00 Lacs per bidder

### **DETAILS OF TENDER FEE / EMD PAID BY THE TENDERER:**

1	MR No. _____ dated _____ or Demand Daft No. _____ Dated _____ Drawn On _____ Bank Towards <b>Tender Fee Rs.10,000=00</b>
2	Demand Daft No. _____ Dated _____ Amount Rs, _____ On _____ Bank towards requisite (EMD) Earnest Money Deposit.
3	Firm’s Sales Tax Regn. [TIN Number]

Signature of the Authorized  
Representatives of the firm

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## PART -I.

### General Commercial Terms & Conditions of Tender.

#### COMMERCIAL TERMS AND CONDITIONS

The tenderer should thoroughly read all the following clauses before submitting their tender. The original copy of the Commercial Terms and Conditions duly signed, stamped with company's seal must be submitted along with the technical bid.

**SUBMISSION OF OFFER:** The bidder has to submit the bid indicating the name of pole factory from where he wishes to supply the poles. Each bidder can submit only one bid. Offers shall be submitted as set forth in the enclosed schedules "B" for Ex. factory prices.

Bids shall be accepted from those bidders who have established Pole factory and possess valid vendor registration issued by erstwhile GEB/GUVNL or any DISCOM.

Bidders who have manufactured and completed supply of ready-made Poles against at least one order for 1000 Nos. 10 Mtr/270 kg. PSC Poles placed by GUVNL/DISCOM/UGVCL will be considered as regular suppliers. **The Regular supplier who supply poles from outside UGVCL area has to deliver the poles to nearby UGVCL circle headquarter or destination as directed by UGVCL authority & The ex. Works rates quoted shall be considered for supply of poles at given destination in UGVCL area.** Others will be treated as new suppliers.

In case the bid of New supplier is found acceptable, a trial order for a quantity of 500 (Five Hundred) Nos or less PSC poles shall be placed, subject to establishing a pole manufacturing facility within time frame of 60 days from issue of LOI/LOA. If the bidder fails to establish a pole factory, or is not considered for vendor registration then the LOI/LOA so issued shall be withdrawn. In such case the EMD shall stand forfeit.

If the bidder establish a pole factory and considered for Vendor registration by UGVCL, then only acceptance of tender (A/T) shall be released.

#### [1] SCOPE OF WORK:

The contractors are required to fabricate and supply Ready-made PSC Poles of 10 meter long and 270 Kgs. working loads as described in the tender.

#### [2] VENDOR REGISTRATION:

Bidders who have manufactured and completed supply of ready-made Poles against at least one order for 1000 Nos. 10 Mtr/270 kg. PSC Poles placed by GUVNL/DISCOM/UGVCL will be considered as regular suppliers. Others will be treated as new suppliers.

Regular suppliers registered with erstwhile GEB/GUVNL/DISCOM shall be registered automatically looking to their performance. Such vendors shall have to furnish copy of VR certificate issued by erstwhile GEB/GUVNL, however they shall have to fill up the prescribed vendor registration form enclosed with the tender.

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Those vendors who have paid VR fees earlier but have not been issued Vendor registration certificate shall have to enclose copy of MR towards same. Those vendors who have not paid VR fees earlier shall have to pay non refundable vendor registration charges of Rs. 10,000=00.

**New suppliers** shall be those suppliers who have applied for registration prior to or at the time of invitation of tender. They will also have to pay vendor registration fees of Rs. 10,000.00 and fill up requisite form. Factory inspection for new suppliers will be carried out by UGVCL.

Please quote the vendor registration number and date in the Schedule-D which is attached with the tender and also ensure to submit the copy of money receipt or vendor registration letter in EMD Cover.

(i)The vendor must enclose vendor registration issued by erstwhile GEB/GUVNL/UGVCL/DISCOM along with the tender. The tenders without vendor registration document shall be liable for rejection.

(a) Bidders holding valid vendor registration are also required to fill up the Vendor Registration format annexure-10 and submit all relevant documents for same. However such bidders need not enclose VR fee.

(b) If the bidder does not have a valid vendor registration issued by (erstwhile GEB), GUVNL or DISCOM then such bidder shall have to apply for vendor registration by filling up the vendor registration form appended at annexure-10 and submit the same along with a demand draft of Rs.10, 000.00 towards vendor registration processing fees.

(iii)Factory inspection shall be carried out by UGVCL for such new bidders before technically qualifying the bidder.

(iv) UGVCL reserves the right to carry out appraisal of the manufacturing facilities of existing pole factories also.

(v) Price bids of such new bidders shall be opened only if the bidder is found to fulfil conditions required for vendor registration.

(vi) In case the bid of such vendor is found acceptable, a trial order for a quantity of 500 (Five Hundred) Nos or less PSC poles shall be placed, subject to establishing a pole manufacturing facility within time frame of 60 days from issue of LOI/LOA. If the bidder fails to establish a pole factory, or is not considered for vendor registration then the LOI/LOA so issued shall be withdrawn. In such case the EMD shall stand forfeit.

[3] ONLY FOR NEW PSC POLE FACTORY:

The contractor will have to establish a Prestressed concrete pole factory in the vicinity of UGVCL at his own cost. The contractor will have to make his own arrangements for the land and power without affecting the stipulated programme immediately from the date of issue of the order or LOI. The contractor will have to give four copies of site plan & other document regarding ownership etc. The

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site of factory shall preferably be near to the Railway station and / or on National Highway or state highway.

The contractor shall have to make his own arrangement for getting new connection of Electricity from UGVCL, at the same tariff and terms & conditions applicable to normal consumer covered in that category.

The contractor shall have to make his own arrangements for the water required for the construction purpose and the UGVCL does not take any responsibility for the same.

No cement or other materials shall be issued by the UGVCL for the construction work of pole factory sheds / Godown / office etc. on site.

### (4)ARRANGEMENT TO BE MADE BY CONTRACTOR IN POLE FACTORY:

a) OFFICE: The contractor shall provide free of charge adequate space to the UGVCL to run UGVCL's office within the site of factory. The contractor will also have to provide necessary facility with furniture at the factory at his cost. The UGVCL shall use the space, which shall be fenced round or otherwise adequate protected at the cost of the contractor. Telephone (P&T) facility shall be provided.

b) ROAD: The approach road to factory and service road inside factory up to the store yard of PSC Poles shall be provided by the contractor so as to avoid any difficulty for entering the heavy vehicles during odd season.

### [5]ACCESS TO CONTRACTOR'S WORKS:

In case, the representatives of the UGVCL are deputed, they shall have free access to the contractor's works at any time, during working hours for the purpose of inspection of materials / manufacturing process / workmanship and test on concrete mix or pole.

### [6]SECURITY DEPOSIT:

Security deposit is now converted in to Performance Bank Guarantee. Small Scale Industries and NSIC certificate holders will not be exempted from this Clause.

### [7] CONSUMPTION OF MATERIALS:

The consumption of the materials per PSC Pole is to be recorded on actual basis with Minimum limit indicated below:

1.	Cement (53 grade)	2.47 Bags.		For concrete mix
2.	4mm H.T. Steel wire	18 Nos.	-	For tension wire.
3.	4mm H.T. Steel wire	12 Nos. Rings.		For spiral Stirrups &
	6mm M. S. Bars	29 Nos. Rings.		for 2 Legged Stirrups.

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The consumption indicated above shall be inclusive of variations inclusive rolling margin. No addition in quantity of consumption shall be permitted resulting thereof in cement and steel. The consumption of cement shall be inclusive of quantity required in finishing work.

PSC Pole under destruction test shall be to the Contractor's account.

### [8] QUANTITIES:

The contractor should plan to supply PSC Poles as per the offered quantities indicated in his tender. However, the UGVCL reserves the right to alter monthly, quarterly or yearly quantity of supply.

The UGVCL also reserves right to vary the ordered quantity up to 40% increase and / or decrease as per the requirement of UGVCL.

The UGVCL reserves right to test 1 (one) No. of pole up to destruction test out of total 1500 Nos. of pole. This one No. pole shall not form a part of quantity to be supplied by the contractor

### [9] PROGRESS REPORT:

The contractor will have to send a monthly progress report for the poles fabricated, tested and accepted by the UGVCL regularly. The contractor should intimate well in advance for non-working of factory, if any, due to public holiday OR festival. He should also submit the detailed report of labour problem, if any.

### [10] INSPECTION AND TESTING:

If considered necessary, the materials will be inspected by a representative of the UGVCL before OR during process of manufacturing of PSC poles. The contractor will have to extend all facilities in this regard to the inspecting officer. All inspections shall be carried out in presence of UGVCL's representative and of the contractor.

The contractor shall have to keep the cube testing machine at the factory site in working condition so as to carry out the cube tests daily in presence of UGVCL's representative. The calibration of the cube-testing machine shall be carried out every year. In case, the cube-testing machine is not bought and not kept in working condition, the UGVCL shall suspend the business as per rule of UGVCL, and stop the production of the factory.

The minimum compressive strength of cube prepared from concrete mix batch shall be 225 kg/cm<sup>2</sup> and 450 kg/cm<sup>2</sup> for 3 days and 28 days respectively. If the compressive strength found less than all corrective measures should be taken as per I.S. provision.

The samples for the purpose of inspection and testing will be selected from a lot offered by the contractor as mentioned at Sampling & Conformity section. The lot will be preferably in the multiple of 100 poles for convenience in accounting and carting. The UGVCL reserves the right to reject the lot in which the sample does not give satisfactory test results.

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The prices quoted in the tender shall include the cost of all the inspections, tests and provision of the necessary testing equipment and facilities.

### [11] DELIVERY AND COMPLETION PERIOD:

The production of poles shall commence immediately but not later than one month from the date of order/L.O.I. The poles shall be made available for delivery every month regularly as per order quantity. The entire supply is to be completed within the stipulated time OR as per production programme given by UGVCL.

### [12] EXTENSION OF DELIVERY PERIOD:

(A) It is contractor's responsibility to ensure that the poles are delivered within the stipulated period. In case, there is any likelihood of delay in supply, request for extension in delivery giving reasons shall be made at least 15 days prior to the expiry of the contractual delivery date.

(B) If contractors are unable to supply the poles within the contractual date, the grant of extension with or without penalty will be considered by the UGVCL in genuine cases. However, such extension will be subjected to the following conditions:

(i) That no increase in price on account of any statutory increase in or fresh imposition of excise duty, sales tax or on account of any other tax or duty liveable in respect of the stores specified in the said acceptance of tender which may take place on or after the contractual delivery of the A/T referred to above shall be admissible on such of the said stores as are delivered after the original contractual delivery date and

(ii) That notwithstanding any stipulation in the contract for increase in price on any other ground, no such increase which has become effective on or after the contractual delivery date of the A/T shall be admissible on such of the said stores as are delivered after the original contractual delivery date.

(iii) But nevertheless, the purchaser shall be entitled to the benefit of any decrease in price on account of reduction in or revision of customs duty, excise duty, sales tax or on account of any other tax or duty or on any other ground as stipulated in the price variation clause which takes place on or after the contractual delivery date of the said A/T.

Explanation; The expression "contractual delivery date" shall mean and include any date on which or the last day of the period within which the whole or part of the goods are contracted to be delivered.

### [13] DIFFERMENT IN DELIVERY:

The UGVCL reserves right to differ the delivery schedule in view of the requirement of PSC poles and intimate the contractor to change the production schedule suitably. However such intimation will be given in writing before one month as and when required. The taxes & duties shall be paid at prevailing rate of revised schedule for the differed quantities.

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### [14]PENALTY FOR LATE DELIVERY:

Penalty for undelivered / late supplied pole will be at ½% per week with maximum 10% ceiling on the value of undelivered poles. This will be deducted from running bill payable or the Bank Guarantee or any amount payable from other running contract with the UGVCL.

### [15]GUARANTEE:

If the poles, which are tested, accepted and paid, are found defective due to use of inferior quality of materials or poor workmanship within the period of 12 months from date of supply, the contractor shall have to replace the same "free of cost" within three months from the notifying the defects. If the same are not replaced within time limit, the UGVCL reserves the right to recover same amount from the Bills without prejudice to any other rights.

### [16]PERFORMANCE BANK GUARANTEE:

The performance guarantee in the form of Bank guarantee amounting to 2% of the contract value shall be furnished by successful tenderer for satisfactory performance of the materials as per Clause No.16 above. Bank Guarantee should be kept valid for a period of twelve Months from the date of last pole supplied. Performance Bank Guarantee should be submitted before supply of first lot of poles, failing 2% of the contract value would be recovered from first R. A. Bill. Small Scale Industries and NSIC certificate holders will not be exempted from this clause. The said Performance Guarantee for supply and warranty must be submitted within 30 (Thirty) days from the date of receipt of LOI/LOA from UGVCL

### [17]PRICES:

Prices, quoted through e-tendering, will be on a firm quotation basis Any variation in the rates etc. will not be allowed on any ground such as a mistake, misunderstanding etc. after the tender has been submitted online. **This PRICE BID should be submitted through e-tendering only.**

The tendered rate include in general -

- (1) All charges for finished poles
- (2) All charges necessary to effect delivery of the PSC Poles Ex. factory including storage till the poles are lifted.
- (3) All charges necessary to effect delivery of the PSC Poles in UGVCL area including storage till the poles are lifted. **This will be applicable for the supply of poles made from outside UGVCL area.**

The contractor will not be eligible for any extra payment for the idle period of works or waiting period that may be required to suit other considerations and claim for compensation on such grounds will not be entertained.

### [18] PAYMENT TERMS:

Payment will be made after lifting of the poles from factory premises by the concern Division Office on receipt of duly certified bills and after verifying the invoices and other related documents

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### [19] SALES TAX:

The prices should be quoted exclusive of Sales Tax i.e VAT or C.S.T. The rate of Sales Tax (VAT or C.S.T.) should clearly be indicated. You are requested to quote your Central Sales Tax Registration Number/Tin No. and date in all the bills if applicable. As per Govt. of Gujarat directives while evaluating your offer the incidence of VAT will not be loaded.

### [20] EXCISE DUTIES:

The Price should be quoted Exclusive of Excise Duty and in single slab only. Multiple Excise Duty slab based on turn over/ production capacity should not be quoted and if quoted then the highest slab for evaluations will be considered. If the Excise Duty is based on the supplier's turn over then in that event all the Excise Duty beyond the Excise Duty quoted by the tenderer will have to be borne by the tenderer it self unless specifically approved.

The Excise Duty rate for the quoted quantity should be stated extra. The offers having the price inclusive of Excise Duty are likely to be rejected if the rate of Excise Duty is not mentioned clearly. The UGVCL may at its discretion consider such offer with presumption of highest rate of Excise Duty prevailing when the price quoted is inclusive of Excise Duty.

Please clarify whether Excise Duty is chargeable or not and the ceiling for the same must be specified to enable us to evaluate your offer. In case Govt. revises the rate of Excise Duty during the tenure of the contract, the provision of UGVCL's statutory variation Clause shall apply.

### [21] STATUTORY VARIATION:

Any statutory increase or decrease in the taxes and duties subsequent to your offer if it takes place within the original contractual delivery date, will be to the UGVCL'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 be passed on to the UGVCL.

### [22] CENVAT:

In the event of any statutory increase in the rate of CENVAT and / or due to inclusion of any other additional item of their inputs under the ambit of the CENVAT Scheme, subsequent to the date of submission of the offer, should be passed on to the UGVCL and you should inform such changes to the UGVCL from time to time.

It will be to the UGVCL's sole discretion to avail the CENVAT benefit or not in the order.

### [23] TERMINATION OF CONTRACT:

In case the contractor fails to deliver the poles within contractual period of delivery or in case the poles are found not in accordance with prescribed specification, the UGVCL shall exercise its discretionary power either.

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- (a) to recover from the contractor as agreed, liquidated damages or by way of penalty the amount as per penalty clause above OR
- (b) to purchase elsewhere after giving due notice to the contractor on account and at the risk of the contractor such poles not so delivered or other similar description without cancelling the contract in respect of the lot not yet due for delivery, OR
- (c) to cancel the contract in the event of the risk purchase of poles, the opinion of the UGVCL shall be final, in the event of action taken indicated in clause (a) or (b) above, the contractor shall be liable for any loss which the UGVCL may sustain on that account but the contractor shall not be entitled to any saving on such purchases made again default.

The decision of the UGVCL shall be final as regard the acceptability of poles supplied by the contractor and the UGVCL shall not be required to give any reason in writing or otherwise at any time for rejection of the poles.

### [24] ARBITRATION:

All questions, disputes or differences whatsoever which may at any time arise between the parties to this agreement touching the agreement or subject matter thereof, arising out of or in relation there to and whether as to construction or otherwise shall be referred to the decision of the Sole Arbitrator, appointed by the Managing Director UGVCL, for that purpose, who shall be a retired High Court Judge or retired District and Sessions Judge, and the decision of the said arbitrator shall be final and binding upon the parties. Reference to the arbitration shall be governed by the provision of Indian Arbitration & Conciliation Act, 1996 as amended from time to time and the rules made there under.

### [25] JURISDICTION:

All tenders / offers, disputes or differences arising under but of or in connection with the contract, if concluded shall be subject to the exclusive jurisdiction of the court within whose jurisdiction the place from which the acceptance of Tender is issued.

### [26] R.A.BILLS:

The contractor has to submit the monthly running bills for the PSC poles supplied during the month for 100% payment to the Engineer in charge, who in turn will record the same and submit to the division office through the Executive Engineer (Civil) for further process of passing & payment.

Following documents shall be enclosed along with each Running Bill.

- (1) Inspection & test report including cube test & destruction test report etc.

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- (2) Proof of quantity of PSC Poles received by the UGVCL & copy of D.I. note.
- (3) Accounts of PSC poles showing supplied & balance to be supplied quantity. (For both)
- (4) Copy of C.R. / M. R. (for both)

### [28] FINAL BILL:

The contractor has to submit the final bill for the PSC poles supplied after successful completion of the contract for balance payment to the Engineer in charge, who in turn, will record the same and submit to the division office through the Executive Engineer (Civil) for further process of passing & payment.

Following documents shall be enclosed along with Final Bill.

- (1) Proof of total quantity of PSC Poles received by the UGVCL.
- (2) Final Accounts of PSC poles.

The final bill along with all above documents shall be submitted within three month on completion of the contract.

### [29]. EMD COVER must contain the following details and documents.

(A) The DD or proof of payment of Tender Fee and EMD as applicable should be kept as separate enclosure & should be submitted in the EMD Cover. Tender submitted without Tender fee or EMD shall be rejected and technical bids cover shall not be opened. The tender bid will be rejected out rightly without entering in to any further correspondence in this regard and no further reference will be made.

Small Scale industries shall be exempted from payment of EMD subject to furnishing a notarized copy of the SSI/NSIC certificate. The SSI/NSIC certificate should indicate the manufacture of items offered under this tender. Provisional SSI certificates shall not be allowed.

(B) List of orders executed in the last three (3) financial years prior to date 01.04.2010 i.e. for F/Y 2008-09 , 2009-10 & 2010-1 (including Supplies made to UGVCL.) for the tendered items. (Under annexure-VI)

(C) Submission of Vendor Registration Certificate.

[30] In case UGVCL finds that there is an attempt of cartel in the prices, UGVCL reserves the right to consider or reject any or all the parties offer without assigning any reason thereof.

[31] UGVCL reserves the right to reduce / enhance the tender quantity as per their requirement at the time of finalization of the tender.

[32] UGVCL reserves the right to place orders for full or part quantity of the quantity offered by a bidder. UGVCL also reserves the right to place orders on one or more than one bidder.

[33]. The tenderer shall have to keep the tender open and valid for a period of 120 days from the technical bid opening date or extended date and shall be bound by communication of acceptance despatched by UGVCL within the above prescribed time limit.

## **UGVCL**

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[34] No tender will be considered unless a latest income tax clearance certificate issued by the Income Tax authority in favour of the tenderer accompanies it.

[35] The contract of supply of Readymade P.S.C. poles is envisaged for the period of two years only. The UGVCL can extend the contract for further period of one year, if deemed fit.

[36] Tenders which do not fulfil all or any of the above conditions or incomplete in any respect are liable for rejection at the discretion of the Chief Engineer (Operation).

[37] The undersigned reserves the right to reject any or all the tenders without assigning any reasons thereof.

[38] The Booklets "General terms and conditions of contract" not deviated in this specification, shall be binding to the contractor for the execution of the work.

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

# UGVCL

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## ANNEXURE – 1

Sub: Tender for manufacture & supply of 10 Meter/ 270 Kg working Load ready made, Pre-Stressed Concrete (PSC) Poles.

Ref: Tender no: **UGVCL/C&IT/PSC Poles /10 MTR /81/2010-11.**

In connection with the above subject and reference I/ We confirm the following:

1. I/We, the under signed have read and examined the Tender Specifications in the tender mentioned under reference along with the Commercial terms and conditions.
2. I / We, declare that our Technical Bid is strictly in line with the Tender specifications (except the deviations shown in Annexure of Technical deviations as per annexure 8 of this tender document).
3. Further, I / We also agree that additional conditions / deviations, if any, found in the Commercial terms & conditions (except reference under annexure 8 of this tender document), our offer shall be out rightly rejected without assigning any reason thereof.

Name of the Tendering Firm / Agency:

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

## ANNEXURE – 2

I / We, confirm that following documents are attached with the technical bid of the offer.

Sr. No	Details	Confirmation (Tick <input type="checkbox"/> any one)
1	Firm's details as per "Annexure -3"	YES / NO
2	Details of equipment & Delivery schedule as per "Annexure- 4"	YES / NO
3	Past experience details as per "Annexure-5"	YES / NO
4	Copy of the un-priced schedule (Description and quantity of items offered in price schedule without price). "Annexure - 6".	YES / NO
5	Financial capacity & Performance certificates as per "Annexure-7"	YES / NO
6	Technical deviation as per "Annexure-8"	YES / NO
7	Undertaking regarding Price quoted " Annexure – 9"	YES / NO
8	"ANNEXURE - 10"	YES / NO
9	Certificate of important Instruction & certificate-A	YES / NO
10	UGVCL's technical specification duly signed and with seal of firm.	YES / NO
11	Guaranteed Technical particulars submitted in UGVCL's Performa only.	YES / NO

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

# UGVCL

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## MANDATORY DETAILS OF THE FIRM

Annexure-3

Tenderer should fill all the details in this form.

Name of Supplier	
Location of Manufacturing unit.	Within UGVCL/Outside UGVCL
Indicate the relevant status of the firm.	Proprietary firm /Partnership Firm / Public Ltd. Co./Others (Pl. specify)
Vendor Reg. Letter No. & date	
Vendor Registration Validity Period up to.	
Vendor Registration issued by	
GST TIN No. & Date	
Excise Regn no & validity.	
SSI Certificate No. and date.	
NSIC Certificate No & date.	
Validity of NSIC Regn.	
Monetary limit under NSIC.	
ISO CERTIFICATION IF any.	ISO 9001 / ISO 9002 (Tick Applicable)
Validity of ISO Certification.	

Address of	Registered Office	Factory/ Works	Authorized Representative
Contact person			
Designation			
Phone Nos.(Office)			
Mobile No.			
Fax Nos.			
STD Code.			
Email-id			

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

# UGVCL

## ANNEXURE – 4

### [A] DETAILS OF ITEMS/EQUIPMENT OFFERED BY BIDDER

Sr. No.	Details of Items Offered	10 Meter/270Kg (PSC) poles.
1	Quantity of 10 meter; 270kg, (PSC) Poles put to Tender	_____
2	Minimum tender quantity offered	_____
3	Supply period of order.	24 months or extended period for supply

### [B] GUARANTEED DELIVERY SCHEDULE

Tenderer should furnish their Delivery Schedule of the tendered item-10 Meter/ 270Kg PSC Poles in the following table:

	Guaranteed maximum quantity offered per month	Guaranteed minimum quantity offered per month
	10 Mtr pole	10 Mtr pole
1		

I/We agree to above guaranteed delivery schedule or revised schedule required by UGVCL while execution of the order/Any amended order for supply of PSC Poles against tender.

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

# UGVCL

## ANNEXURE-5

DETAILS OF THE EXPERIENCE FOR SUPPLY OF SIMILAR TYPE OF ITEMS IN PREVIOUS THREE FINANCIAL YEARS FROM THE DUE DATE OF TENDER

Sr. No	Name of Utility	P O No & Date & quantity. (Pl.furnish separate details for 10 Mtr. PSC poles.)	Status, of Order Execution
A	(Erstwhile GEB) GUVNL/PGVCL/MGVCL/UGVCL/DGVCL For 10 Mtr. 270 Kg. PSC Poles		
1			
2			
3			
4			
5			
6			
7			
8			
9			

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

Sr.No.	PARTICULARS	COMPLIANCE
1	PRICES: [QUOTED FIRM PRICES ONLY]	YES / NO
2	EXCISE DUTY (SINGLE SLAB ONLY.)Specify inclusive/exclusive/exempted	_____percent inclusive/exclusive exempted
3	Sales Tax [VAT]; applicable %.	
4	Sales Tax [VAT]; TIN Number	
5	PENALTY TERMS AGREED or NOT.	YES / NO
6	SECURITY TERMS for supply agreed or not.	YES / NO
7	PERFORMANCE GUARANTEE TERMS For supply agreed or not.	YES / NO
8	DELIVERY TERMS AGREED OR NOT	YES / NO
9	VALIDITY OF OFFER AGREED OR NOT.	YES / NO
10	PAYMENT TERMS AGREED OR NOT	YES / NO
11	QUANTITY OF ITEMS OFFERD FOR SUPPLY	
12	NAME OF PROPERITOR/PARTNER/ DIRECTOR OF THE FIRM (Authorized to sign tender documents. and correspondences)	
13	NAME OF EXECUTIVE OF THE FIRM AUTHORISED to sign tender documents, If other than one of above.	
14	TELEPHONE NUMBER & MOBILE NUMBER of authorized Person.	<u>Tel.No</u> <u>Mob. No</u>
16	VENDOR REGISTRATION NUMBER issued by GEB/GUVNL/any DISCOM	

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

# UGVCL

## ANNEXURE-7

BIDDERS must furnish the following details with the technical bid.

[1] The financial turn over for the following last three financial years.

Sr. No	Financial Year(Apr to Mar)	Financial turnover (Rs. Lacs.)	Abridged Balance Sheet duly certified by a C.A. attached
1	2009-2010		Attached/not attached
2	2008-2009		Attached/not attached
3	2007-2008		Attached/not attached

[2] 10 Mtr PSC Poles supplied to other DISCOM during last three years.

Sr. No.	Financial Year	Annual Quantity of PSC Poles supplied	Name of DISCOM/ UTILITY
1	2009-2010		
2	2008-2009		
3	2007-2008		

[3] 10 Mtr PSC Poles supplied to UGVCL during the last three Years.

Sr. No	Financial Year	Annual quantity of PSC Poles manufactured.	Supplied to UGVCL
1	2009-2010		
2	2008-2009		
3	2007-2008		

[4] The bidder's annual capacity for manufacture PSC Poles supplied during the last three Years.

Sr. No	Financial Year	Annual quantity of PSC Poles manufactured.	Yearly manufacturing capacity of 10 meter long PSC Poles
1	2009-2010		
2	2008-2009		
3	2007-2008		

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

# UGVCL

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## ANNEXURE-8

TECHNICAL DEVIATIONS, IF ANY MAY BE FURNISHED IN THIS ANNEXURE ONLY AND BE SUBMITTED ALONG WITH THE TECHNICAL BID.


Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

## ANNEXURE-9

(UNDERTAKING REGARDING PRICES QUOTED AGAINST THE TENDER)

This undertaking need to be submitted in separate Sealed Cover super scribed “Undertaking in regard to quoted price” and should be placed in technical bid Cover. All bidders will have to furnish the following undertaking duly filled in, Signed and stamped for each quoted item of the tender. The undertaking shall be submitted along with the technical bid.

**TENDER NOTICE NO: UGVCL/C&IT/PSC Poles /10 MTR/81/2010-11.**  
This is to certify that we have not supplied the subject tender items Viz. PSC POLES 10 meter long to other DISCOMS; with the tender specification of UGVCL at lower Unit Ex-Works price than the unit Ex-Works prices quoted against this tender by us during last six (6) Months.”

Seal of the Firm

Signature of Tenderer

Date:

**FORMAT FOR VENDOR REGISTRATION**

1(a)	Name of the firm	
	Address of the registered Office of the Firm.	
	Phone / Fax no.; E-Mail address	
1(c)	Address of the Pole Factory	
1(d)	The date of commencement of production at the Factory	
2(a)	Whether Proprietary Concern; Pvt. Ltd. Co.; Or Public Ltd. Co. [Certified Copy of relevant documents to be enclosed]	
2(b)	Name of the Proprietors, Partners, Directors, as the case may be.	
3	Total Investment excluding Loan Capital.	
4	Loan Capital if any	
5	Land Area of the Factory.	
6	Built up area of the Factory	
7	No. of shifts in the Factory	
8	Factory License No.	
9(1)	Small Scale Certificate No.	
9(b)	Value of Plant and Machinery certified by SSI in case of SSI Units, Or certificate of a Chartered Accountant.	
10	Details of machinery installed with their capacities.	
11	Details of testing equipment with their capacities.	

## UGVCL

12	Qualified personnel employed in the Factory.				
	Managerial/Production staff				
	Quality Control staff.				
	Skilled Workmen.				
	Unskilled Workmen.				
	Others				
13	Sources of supply of raw materials.				
a	Portland Cement (43/53 grade)				
b	Steel Wires (4mm / 5mm)				
c	Steel bars (6mm)				
d	Sand				
e	Aggregates (Coarse & fine)				
f	Water for concrete mixing.				
14	Production Capacity Details for manufacture of 10 meter PSC poles				
a	No of casting Beds installed & commissioned				
b	No. of rows per bed.				
c	Average number of PSC poles cast per day (no. of rows)				
15	Pole Curing Capacity for 10 mtr PSC poles details of ponds with sizes (Sizes to be specified in mm)				
Pond No.	Length	Width	Depth	Volume	Pole Capacity
1					
2					
3					
4					
16	Whether the firm possesses ISO 9001/9002 Certificate; If yes furnish ISO number & validity				

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

## **DOCUMENTS TO BE ENCLOSED WITH VR FORMAT**

Following documents as applicable are to be attached in single copy.

Sl. No	Document to be submitted	Enclosed Copy
1	Partnership Deed or Article of Association	YES / NO
2	Latest Audited Balance Sheet.	YES / NO
3	Factory License	YES / NO
4	SSI/NSIC Registration Certificate	YES / NO
5	Details of machinery installed with their capacities (as per sl.no.10 above)	YES / NO
6	Details of testing equipment with their capacities (as per sl.no.11 above)	YES / NO
7	List of Orders for PSC Poles executed during last three years.	YES / NO
8	Detailed Lay out drawing of factory [Drawn to scale].	YES / NO
9	Connected Motive Power Load of the factory. [Enclose copy of bill]	YES / NO

Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

# UGVCL

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**TENDER NO: UGVCL/C&IT/PSC Poles /10 MTR /81/2010-11.**

**(Undertaking to be submitted on Firm's Letter pad)**

**CERTIFICATE – “A”**

I/ We \_\_\_\_\_ authorized signatory of  
M/s. \_\_\_\_\_ hereby certify that above  
firm is not related with other firms who have submitted tenders for the same items  
under this inquiry / Tender.

**Seal of the Firm**

Date:

Place:

Signature of the Authorized  
Representatives of the firm

# UGVCL

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## TENDER NO: UGVCL/C&IT/PSC Poles /10 MTR / 81/2010-11. IMPORTANT INSTRUCTIONS

[1] Bidder should furnish following certificate with the Technical Bid:

“This is to confirm and certify that the offer submitted by me/us is strictly in accordance with UGVCL’s Tender specifications, Guaranteed Technical Particulars and drawings as mentioned in the Tender Specifications.

There is no commercial or technical deviation from UGVCL’s Tender Specification.(Except the deviation shown in Annexure 8, Technical Deviations.) in the offer submitted by us.

I/We undertake to abide by UGVCL’s Technical specification/ Guaranteed Technical Particulars / Drawing, and undertake to supply materials strictly as per UGVCL’s Technical specification / Guaranteed Technical Particulars / Drawing, even if any technical deviations are mentioned by me. I also undertake to abide by all commercial conditions of UGVCL, including delivery schedule.”

### **Seal of the Firm**

Date:

Place:

Signature of the Authorized  
Representatives of the firm

NOTE:

1. Offer submitted without above certificate will not be considered and the tender will be out rightly rejected.
2. After opening of the Tender, if it is found that the offer given by the Tenderer is not according to UGVCL’s specifications, Guaranteed Technical Specifications, drawing and commercial terms and conditions and false certificate is given by the Tenderer, then UGVCL will not deal with the firm for the present Tender. It is, therefore requested that the Tenderer should take care in giving their offer and submission of documents, including Type Test certificate.
3. The conditional tenders will not be accepted.

# UGVCL

## TECHNICAL TERMS AND CONDITIONS:

### [1] SCOPE OF WORK:

The scope of the work covers fabrication and supply PSC Poles of 10 meter long and 270Kgs. working (transverse) load in accordance with the technical terms and drawing of this specification. Alternate design / specifications shall not be considered which may be noted.

### [2] DIMENSIONS AND TOLERANCES:

SR NO	DESCRIPTION	STANDARD IN MM	MAXIMUM IN MM	MINIMUM IN MM
1	LENGTH	10000	10015	9985
2	WIDTH			
	- TOP	127.00	132.00	122.00
	- BOTTOM	406.00	411.00	401.00
3	THICKNESS	165.00	168.00	162.00
4	PLANTING DEPTH	1675	-	-

NOTE: All dimensions are in mm.

### [3] WORKMANSHIP:

The contractor will be responsible for the general soundness as well as good finish of each pole. The workmanship should be of high degree and poles having flaws and defects will be rejected.

### [4] STANDARDS:

The poles shall comply with the relevant provisions made in the following Indian standard specifications with latest amendment.

- i) IS: 1678/1998: Specification for Prestressed concrete poles for overhead Power traction and telecommunication lines
- ii) IS: 2905/1989: Method of test for concrete poles for Overhead Power and Telecommunication lines.
- iii) IS:1343 & IS: 456:Code of practice for Prestressed and plain/reinforced Concrete.

### [5] MATERIALS:

The materials shall conform to this specification and be in accordance with the guaranteed particulars given.

The quality of materials to be used for manufacturing of PSC poles shall be as under.

## UGVCL

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[A] CEMENT: The Ordinary Portland Cement used in manufacture of prestressed concrete poles shall be relevant to IS: 8112/1989 of 43-Grade / 53-Grade to get 28 days strength of 450 Kg/ cm<sup>2</sup>. Use of 53 Grade preferred. Test Certificate for each batch must be obtained from supplier ensuring quality of supply.

[B] STEEL: The M.S. Bars of 6 mm dia and 4mm H.T. Steel wire used as prestressing steel in manufacture of Prestressed concrete poles shall conform to IS: 2062/1989 and 6003/1983 and latest amendment thereof respectively. Test certificate must be available for each lot of supply.

[C] AGGREGATE: Aggregate used for the manufacturing of prestressed concrete poles shall conform to IS: 383-1963. Aggregate shall consist of naturally occurring crushed black metal. They shall be hard, strong, dense, durable, clear and free from veins and adherent coating, and free from injurious amount of disintegrated pieces, alkali, vegetable material, and other deterious substances. So far as possible flaky and allocated pieces should be avoided. It should not contain organic or other admixture that may cause corrosion of the reinforcement or impair the strength or durability of the concrete.

The coarse aggregate shall consist of trap (preferably black) metal and in no case exceed 20 mm. The fine aggregate shall be sharp, free from impurities and required fine modules as specified. The sand shall be washed before use by installing a sand washing machine in the factory and the same shall not contain silt and deterious materials. The grading of fine aggregate shall be in accordance with IS: 2386 - 1963 with latest amendment.

[D] WATER: Water to be used for process of manufacturing PSC poles like concrete mix and curing should be free from chlorides, other salts and organic materials and it should be got tested in Govt. Laboratory at lest once in a year by the party. Potable water only shall be used.

### [6] STORAGE OF MATERIALS

The cement shall be stored at the work side in such a manner as to prevent deterioration due to moisture or intrusion of foreign matter.

Steel reinforcement shall ordinary be stacked in such a way so as to avoid distortion and to prevent deterioration and corrosion. It is good practice to coat reinforcement with cement wash before stacking to prevent scale and rust.

The aggregates shall be stored in such a way as to prevent mixing of foreign materials. The heaps of fine and coarse aggregates shall be kept separately. When different sizes of fine or coarse aggregate are procured separately, they shall be stored in separate stockpiles, to prevent the material at the edges of the piles from getting intermixed.

Any material, which has deteriorated or has been damaged or is otherwise considered defective, shall not be used for the concrete.

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### [7] TESTING OF MATERIALS:

The contractor shall arrange for the necessary testing of the material like Metal, Sand, Water etc. and see that the materials to be used in the manufacturing conform to relevant IS

### [8] METHOD OF MANUFACTURING OF PSC POLES:

The Prestressed concrete poles are generally manufactured by long line multiple bed method for mass production.

#### (A) BED AND MOULD:

The length and number of rows of concrete casting bed shall be according to the production capacity of pole factory. Preferably one pole bed separately should be provided to minimise wastage of H.T. Steel wire.

The Prestressed poles are to be cast in a steel mould having accurately machined bottom bed and side faces. The steel mould should be strong enough to resist distortion. The bed should be absolutely horizontally levelled and free from any undulation. The mould should be capable of being opened in such a way that edges of the poles are not damaged.

At both the ends of row of concrete casting bed, the anchor blocks are provided for fixing and stretching of H.T. Steel Wire.

#### (B) STIRRUPS:

The stirrups shall be prepared as per the design / drawing of the UGVCL from 4 MM dia H.T. Steel or 6MM dia. M.S. Bars. The stirrups shall be placed in position as per approved drawing. Stirrups shall have standard lap lengths and be welded to ensure maintaining proper shape and position. .

#### (C) PREPARATION OF REINFORCEMENT:

All the reinforcement and window boxes shall be accurately placed and maintained in position during the fabrication. As per the Design / Drawing all the stirrups made out of M.S. Bars, H.T. Steel wire shall be placed in respective position of the mould and thereafter continuous H.T. Steel wires are arranged through holes and plates of the mould. The welded joints in H.T. Steel wire will not be permitted. The H.T. Steel wires are stretched up to the required tension 10% of UTS as specified in relevant I.S. code with the help of Jacks and anchor blocks. All the wires shall be accurately stretched with uniform prestressing in each wire. Each wire shall be anchored positively during the casting. The tension applied shall be checked with the help of suitable Gauge/Meter.

#### (D) CONCRETE MIX:

The concrete mix to be used for manufacturing of PSC Poles shall be prepared by weight batching only in such a manner and proportion so as to achieve the compressive strength of the concrete mix as per IS: 456 and none of the test specimen shall have strength less than 225 and 450 KG/CM<sup>2</sup> after 3 and 28 days respectively. The cement concrete shall be mixed only in electrically / mechanically operated concrete mixer machine. Gradation of the aggregate used in concrete mix shall adhere to the appropriate Mix Design and

## UGVCL

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proportions be checked in regular interval. Water in concrete shall be added with proper measurement to maintain required water cement ratio. The hand broken metal shall not be permitted.

### (E) PLACING OF CONCRETE MIX:

The mould should be free from Dust, Dirt and other organic materials and oil is to be applied before placing the concrete mix. The machine mixed concrete is, thereafter poured in the mould and shall be compacted by spinning, vibrating, shocking or other suitable mechanical means. Over-vibration or under-vibration or vibration of very wet mix is harmful and should be avoided. The Hand compaction shall not be permitted.

On application of vibrator the concrete Mix will compact & get to 2 to 3 mm below form/mould level. This gap shall also be filled up with prepared concrete Mix only & re vibrated. The mixture of cement & sand for filling up the gap as well as finishing work will not be permitted. Finishing work shall be done only with cement slurry.

Care should be taken to see that anchorages do not yield before concrete attains necessary strength. Proper cover for concrete should be maintained throughout process of pouring, compacting etc. of concrete mix.

On achieving setting time, the side faces of the mould shall be removed from the bed and watered at intervals to prevent the surface cracking of the pole. The concrete shall be covered with a layer of sacking, canvas, Hessian or similar absorbent materials and kept constantly wet up to the time when the strength of the concrete reaches to the minimum strength of the concrete at transfer of prestress i.e. for about 72 hours.

The Steam curing may be permitted in exigency or emergency cases with the approval of the competent authority only.

### (F) DETENSIONING, CUTTING OF WIRE AND REMOVING OF POLES FROM THE BED:

After ascertaining that concrete has attained required strength of min. 225 KG/CM<sup>2</sup> by checking the cube strength stretched wires are released from the anchor blocks and cut with the help of welding machine. The cutting shall be started only from the centre of the bed length. The pole is then removed from the bed by lifting at 2 points using gantry and moved to the Curing Pond.

### (G) CURING:

The curing of the pole shall commence after setting of the concrete. Continuous curing on bed should be done till it is shifted to curing pond, The curing pond shall be full of water and each pole must be immersed in the water for a period of at least 28 days. If required, water sprinkling shall be done at intervals to keep the poles constantly wet as per I.S.No.1678-1998.

### (H) STORING OF POLES READY FOR INSPECTION:

The poles prepared vide method stated above shall be stacked in chronological method and indication of the date of manufacturing and number of poles be put before with particular lot so as to identify the lot by inspecting officer.

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### 9] MARKING:

The poles shall be clearly and indelibly marked with the following particulars during manufacture, at a position between 5th (W5) and 6th (W6) window indicated in the drawing so as to easily read after erection in position. The mark shall be done by pressing embossed figures / letters of 50 mm height and 20 mm width with gap of 5 mm between two figures. The sample drawing No. - C 583 - A is attached with the tender.

- (a) Date, month & year of manufacture, (On front face)
- (b) Serial number of pole, and (On front face)
- (c) Maker's serial number or mark (On both side faces)  
in oil painting to be marked before placing in curing pond.
- (d) UGVCL symbol (above planting depth)

The pole shall also be suitably marked for the planting depth i.e. 1675 mm from bottom.

On both the end of pole the anti corrosive paint i.e. epoxy based bituminous paints two coats are to be applied. One before putting in curing pond and second after removing from the pond.

[10]CUBE TESTING: Total 6 Nos. Cubes of 150mm X 150mm X 150mm size concrete shall be cast daily and tested at release, i.e. after approx. 72 Hours of cast as well as after 28 days, in accordance with Indian Standard specification at contractor's own expense. The mix for concrete adopted shall be such as to give cube strength not less than 225Kg/cm<sup>2</sup> at release (after 3 days) and 450 Kg/cm<sup>2</sup> after 28 days.

Cube testing machine shall always be kept in the working condition and regular cube tests shall be taken and results be recorded in the registers duly signed by engineer-in -charge and representative of the contractor.

### Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

## SAMPLING AND CONFORMITY

- 1] LOT:
  - A. In any batch, all poles of the same class and same dimensions shall be grouped together to constitute a LOT.
  - B. If the number of poles in a lot exceeds 200 then the lot shall be divided into suitable number of SUB-LOTS such that the number of poles i.e. any sub-lot shall not exceed 200. The acceptance or otherwise of a sub lot shall be determined on the basis of the performance of sample selected from it.
- 2] Scale of Sampling: The number of poles to be selected from a lot or a sub-lot shall depend upon its size and shall be in accordance with col.1&2 of the table given below.

SAMPLE SIZE AND CRITERIA OF CONFORMITY			
DIMENSIONAL REQUIREMENTS.			
Size of lot Or Sub-Lot	Sample size	Permissible No. of Defective samples.	NO. Of sample Poles (Out of Col.2) for Transverse Strength test
(1)	(2)	(3)	(4)
Up to 100	10	1	2
101 to 200	15	1	3
201 to 300	20	2	4
301 to 500	30	3	5

- 3] Number of Tests: All the poles as selected as above shall be tested for overall length, cross-section and uprightness. The number of poles to be tested for transverse strength test shall be in accordance with col 4 of table. These poles may be selected from those already tested.
- 4] Criteria of conformity: A lot or sub-lot shall be considered as conforming to the specification if the conditions under are satisfied.  
The numbers of poles which dose not satisfy the requirements of overall length; cross-section and uprightness shall not exceed the corresponding number given in col.3 of Table. If the number of such poles exceeds the corresponding number, all poles in the lot or sub-lot shall be tested for these requirements, and those not satisfying the requirements shall be rejected.  
All the poles tested for transverse strength test shall satisfy the requirements of the test. If one or more poles fail, twice the number of poles originally tested shall be selected from those already selected, and subjected to the test. If there is no failure among these poles, the lot or the sub-lot shall be considered to have satisfied the requirements of this test. If one or more poles of the second samples fail, the lot or the sub-lot represented by the corresponding samples shall be considered not to have passed the test.

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## METHOD OF INSPECTION AND TESTING

### GENERAL:

The tests on poles shall not be carried out earlier than 28 days from date of manufactured for poles manufactured from ordinary Portland cement or blast furnace slag cement. If a chloride free admixture is used or rapid hardening Cement of Grade 43 / 53 is used than pole can be tested at 14 days of age. The specimens shall be inspected and any specimen with visible flaws shall be discarded. If any test specimen fails because of mechanical reasons, such as failure of testing equipment or improper specimen preparation, it shall be discarded and another specimen shall be taken.

### INSPECTION:

The Tenderer shall offer Ready Made PSC Poles lot for inspection and relevant tests.

#### (01) DIMENSIONS:

All the Poles shall be manufactured in accordance with the detailed dimensional drawing.

The tolerance on dimension shall be limited to...

- (i) For length -  $\pm 15$  mm.
- (ii) For Web thickness -  $\pm 5$  mm.
- (iii) Upright ness - 0.5 % (i.e. 72 to 1.005 / 0.995)

#### (02)METHOD OF TESTING:

The pole shall be tested only in the horizontal position or as specified in I.S. 1678 / latest amendment & I.S. 2905 /1989 latest amendment .While testing in the horizontal position, provision shall be made by suitable supports to compensate for the overhanging weight of the pole; for this purpose the overhanging portion of the pole may be supported on a movable trolley or similar device. The frictional resistance of the supporting devices should be separately determined and deducted from the total final load applied on the pole.

Theoretically the permanent deflection should be as per IS 2905 / 1966 and latest amendment thereof. The recovery of deformations should not be less than 90%.

#### A] Testing Arrangement -

The pole shall be fixed in the crib longitudinally from butt to its ground line and then it shall be secured firmly in place. Wooden saddles with concave surfaces and other packing shall be placed around the pole to prevent injury to the butt section as specified in IS: 2905/1966 – latest amendment.

To minimise vertical movement at the point of load application and to reduce the stresses due to dead weight of the pole, a rail support shall be provided near the point of load application, or alternately a number of friction less supports in the form of trolleys may be provided near the end or throughout the length of

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the pole. The rail support or other forms of support shall be such that any friction associated with the deflection of the pole under load shall not be a significant portion of the measured load on the pole.

B] Loading - The load shall be applied at a point 600 mm from the top of the pole by means of a suitable device, such as a wire rope and winch placed in a direction normal to the direction of the length of the pole, so that the minimum length of the straight rope under pull (excluding the curved portion near the transmitting devices) is not less than two times the length of the pole. If the loading device is set sufficiently far away from the pole to make the angle between the initial and final positions of pulling line small, the error in assuming that the pull is always perpendicular to the original direction of the pole axis will be negligible. The pulling line shall be kept level between the winch position and the point where load is applied to the pole. The load shall be applied at a constant rate of 4 percent of the specified test load per minute and in accordance with procedure.

C] Pulling Line: The pulling line shall be secured around the pole at the load point. Load measuring device shall be placed in a way so as to accurately measure in the tension in the pulling line. The other end of which is attached to the loading equipment (winch).

D] Load Measurement: Load Cell with accuracy of 5 Kg. for measurement may be adopted. Load cell shall be calibrated before every test. The load measuring device shall be supported in such a way that the force required to pull it shall not add to the measured load on the pole and that no damage is cause to the instrument if the pole suddenly breaks under test. No pullies or any other device in between load application point and load cell will be allowed.

E] Deflections - The deflection of the pole and the load applied shall be measured simultaneously at different stages of loading to provide at least five sets of readings or as specified in I.S.2905 & latest amendment thereof. The measurement of the deflection of the load point shall be made in a direction perpendicular to the unloaded position of the pole axis. The measurement shall be made correct to the nearest 1 mm by use of datum board. A second datum line shall also be established from which the movement of the ground line if any, shall be measured.

F] PROCEDURE: Load shall be applied at a point 600 mm from the top of the pole and shall be steadily and gradually increased in increments of 67.5Kg. till formation of 1<sup>st</sup> crack recording deflection at each increment.

The load shall be then reduced to zero and then increased gradually in 67.5 Kg. increments to 540Kg load. Each load increment be successively increased by 33.75Kg. up to design ultimate transverse load (i.e. 675 Kgs.). The load shall be

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increased in steps of 33.75 Kgs. to measure ultimate transverse load, until failure occurs. Each time the load is applied same shall be held for 2 minutes. The load applied to prestressed concrete poles at the point of failure shall be measured to the nearest five kilograms.

G] RECORDING OF DATA AND MEASUREMENTS: (i) Any hair cracks appearing at a stage prior to the application of the design transverse load at first crack shall be measured using feeler gauges & shall be recorded. It should also be recorded, whether the hair cracks, if any, produced on application of the 60 percent of the minimum ultimate transverse load close up on the removal or reduction of the test load.

(ii) The load applied to the pole at the time of failure shall be measured to the nearest 5Kg.

iii) A Prestressed concrete pole shall be deemed not to have passed the test if crack wider than 0.1mm appears at a stage prior to the application of the design transverse load at first crack (270 Kgs.)

(iv) The definition of failure of PSC Pole in test will be (i) permanent set more than 3.5 Cm. at load of 675 Kgs. Or (ii) Deflection of more than 35 Cms at load of 675 Kgs.

### H] ULTIMATE FAILURE:

The conditions existing when the pole ceases to sustain a load increment owing to either crushing of concrete or snapping of the prestressing tension or permanent stretching of the steel in any part of the pole.

At least one pole shall be subjected to destruction test in the contract in presence of representative from UGVCL, Mehsana.

**I / We confirm having read the above conditions and also accept the same without any deviations.**

### Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

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(TECHNICAL BID FORMAT)

TECHNICAL DATA OF PSC POLES

The Guaranteed Particulars of PSC Poles 10 Mtr. 270 Kg.

01. Working load : 270 Kg.
02. Factor of safety : 2.5
03. Ultimate Load : 675 Kgs.
04. Dimensions :
  - (a) Bottom Cross-Section : 406 x 165 mm.
  - (b) Top Cross-Section : 127 x 165 mm.
  - (c) Total height : 10,050 mm.
  - (d) Web thickness. : 63 mm
  - (e) Planting Depth : 1675 mm.
05. No. of Windows : 09 nos.
06. No. of 20mm dia holes.  
On Front face : 06 nos. (100 mm apart).
07. Minimum requirement:
  - (a) Cube Test (Each Specimen) : 450 Kg/Cm<sup>2</sup> (28 days).  
: 225Kg/Cm<sup>2</sup> (3 days)- at release of  
Prestress.
  - (b) Initial tension in HT Steel Wire/Pole. : 70% of 175.00 Kg/mm<sup>2</sup>  
as specified in related I.S.Code

## Seal of the Firm

Date:

Place:

Signature of the Authorized  
Representatives of the firm

## **BOOKLET FOR GENERAL TERMS & CONDITION FOR CONTRACT.**

The general terms and conditions of contract will apply to all supply to contracts and you will be deemed to fully aware of the general terms and conditions of contract for the supply of material except the conditions modified in the commercials terms and conditions and any ignorance of these conditions will not exempt you from your liability to abide by the same. Copies are available from the CIVIL Department.

Date:

Signature & Address of the contractor.