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Note:

The bidders, in their own interest are requested to read very carefully Section-I (Instruction to Bidders), Section-II (General Condition of Contract) & Section-III (Technical Specification) before filling the bid. The Bid documents can be downloaded from website of Jodhpur Discom www.jdvvn.com & <http://eproc.rajasthan.gov.in> and can be uploaded on the website <http://eproc.rajasthan.gov.in>. No hard copy of the bidding documents will be provided to the bidders through this office. In case of any discrepancy found in the bidding documents downloaded from the website and appended with the bid (as a bid document) and the original copy of such document available in the office of Superintending Engineer (MM&C), Jodhpur Discom, Jodhpur then the copy available with Superintending Engineer (MM&C), Jodhpur Discom, Jodhpur will be considered as final document for all purposes. The cost of Bid document as published in NIT shall be furnished along with downloaded bid document in the manner prescribed in bid document.

**JODHPUR VIDYUT VITRAN NIGAM LTD
OFFICE OF THE SUPERINTENDING ENGINEER(MM&C)
NEW POWER HOUSE, INDUSTRIAL AREA, JODHPUR-342003.**

TELEPHONE: 0291-2742223

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TENDER SPECIFICATION NO. JdVVNL/SE(MM&C)/EIIIAIII/TN-1311

Tenders are hereby invited in e-procurement system for purchase of **9.0 M LONG PCC POLES OF 200 KG WORKING LOAD WITH FACTOR OF SAFTY 2.5, UNDER TN-1311**

Tenders are to be submitted online in electronic format on website <http://eproc.rajasthan.gov.in>.

The details are as under-

S. No.	Name of Item	Quantity
1	9.0 M LONG PCC POLES OF 200 KG WORKING LOAD WITH FACTOR OF SAFTY 2.5,	304229 Nos.

A	NIT No.	TN-1311
B	Cost of tender specifications	Rs. 2500.00 (Two Thousand Five Hundred Only)
C	Processing fee of RISL	Rs. 1000.00 (One Thousand Only)
D	Earnest money	Rs. 7.50 Laacs / Exemption Certificate / Vendor Registration of Class A.
E	Validity	120 days from the next date of opening of techno-commercial bid.
F	Base date for price variation	1st day of one month prior to the date of opening of the bid

IMPORTANT DATES

S.N.	Events	Date & Time	Location
1	Date of downloading of tender specifications	Up to 14.02.2017 (6:00 PM)	www.jdvvn.com & http://eproc.rajasthan.gov.in
2	Deposit of cost of Tender Specifications & Earnest Money and furnishing of Processing fee	Up to 14.02.2017 (4:00 PM)	Office of Sr. A.O (Cash & CPC) / SE (MM&C), JdVVNL , New Power House, Industrial Area, Jodhpur
3	Last Date & time of submission of electronic bid	Up to 15.02.2017 (12:00 PM)	http://eproc.rajasthan.gov.in
4	Opening of Technical Bid	15.02.2017 (3.00 PM)	http://eproc.rajasthan.gov.in
5.	Opening of Price Bid	To be intimated separately to the qualified bidders	http://eproc.rajasthan.gov.in

SECTION-III
TECHNICAL SPECIFICATION FOR SUPPLY OF 9.0 M LONG PCC POLES OF 200 KG WORKING LOAD WITH FACTOR OF SAFTY 2.5, AGAINST TN-1311.

1. SCOPE:

This specification covers the design, manufacture, inspection, testing and delivery of finished 9.0 M long- 200 Kg. rectangular shaped, solid prestressed cement Concrete poles, witnessing of tests before dispatch and its transportation from the firm's works to consignee's head quarters. These poles are to be used for erection of 11 KV & LT over head lines and installation of 11/.4 KV distribution transformers.

2. CLIMATIC CONDITIONS

I. Peak ambient temperature	50 Degree C
II. Maximum average ambient temperature	40 Degree C
III. Maximum temperature attainable	60 Degree C
IV. Maximum relative humidity	100 %
V. Minimum relative humidity	50 %
VI. Average number of thunder storm days per annum	40
VII. Average number of rainy days per annum	100
VIII. Average annual rainfall	10-100 cm
IX. Maximum wind pressure	195 Kg/sq.m
X. Altitudes not exceeding	1000 mtrs.

3. REQUIREMENT

The tentative requirement of 9.0 M long poles designed for working load 200 Kg with factor of safety 2.5 is **304229 Nos.** approx. These poles are required for erection of 11 KV & LT over head lines and installation of 11/.4 KV distribution transformers.

The quantity indicated above is tentative and purchaser reserves right to increase/decrease the same at the time of finalization of tender.

4. DELIVERY SCHEDULE:

The maximum commencement period shall be 40 days from the date of receipt of LOA, and entire ordered quantity shall be completed in eight (8) months thereafter. The bidder is required to quote monthly delivery. In case ordered quantity is different than quoted quantity, monthly delivery shall be adjusted proportionately. Tenders in which monthly delivery is not indicated are likely to be ignored.

5. DETAILS OF APPLICABLE STANDARDS/SPECIFICATION/MANUALS :

The pole shall comply with the relevant provisions made in the following Indian Standards Specification (now BIS) with latest amendments / REC specifications.

1	REC manual No.13/1977 (part-I)	Manual on manufacturing of solid poles part-I design aspects.
2	REC manual No.13/1977 (Part.II)	Manual on manufacturing of solid PCC poles part.II manufacturing aspects.
3	REC specification No.15/1979 (amended upto 1983 & thereafter)	Prestressed cement concrete poles (FOS/2.5) for 11 KV and LT lines.
4	IS:1678/1978 (Latest amended)	Specification for PCC poles for overhead power traction & telecommunication lines.
5	IS:2905/1989 (Latest amended)	Method of test for PCC poles for overhead power and telecommunication lines.
6	IS:7321/1974 (Latest amended)	Code of practice for selection handling and erection of concrete poles for overhead power and telecommunication lines.
7	IS:1343/1980(Latest amended)	Code of practice for prestressed concrete
8	IS: 456/1978 (Latest amended)	Code of practice for plain and reinforced concrete
9	IS: 1785(Latest amended)	For HT steel wires for prestressed concrete

6. MATERIAL

The following quality of material should be used for manufacturing of PCC poles.

(i) **CEMENT** : The cement used in manufacture of prestressed concrete poles shall be ordinary or rapid hardening portland cement conforming to IS:269/ 1976 (specification for ordinary and low heat portland cement) or IS:8041-E-1978 (specification for rapid hardening portland cement) or portland cement conforming to IS:8112/1976.

(ii) **AGGREGATES** : Aggregates used for the manufacture of prestressed concrete poles shall conform to IS:383/1970 (specification for coarse and fine aggregates from natural sources for concrete). The nominal maximum size of fine aggregates shall not exceed 10 mm.

(iii) **WATER** :Water should be free from chlorides, sulphates, other salts and organic matter. Potable water is generally suitable.

(iv) **ADMIXTURES**: These admixtures should not contain calcium chloride or other chlorides and salts which are likely to promote corrosion of pre-stressing steel.

(v) **PRE-STRESSING STEEL** : The prestressing steel wires including those used as unintentioned wires should conform to IS:1785 –1966 Part.I (Specification for plain hard drawn steel wire) or IS:"6003/1970 (Specification for indented wire for prestressed concrete). The type design for plain wires of 4 mm diameter are with a guaranteed ultimate strength of 175 Kg./sq.mm.

(vi) **CONCRETE MIX** : The concrete mix. shall be designed to the requirements laid down for controlled concrete (also called design requirement laid down/ mix. concrete) in IS:1343/1980 (Code of practice for prestressed concrete) and IS:456/1978 (code of practice for plain and reinforced concrete) subject to the following special conditions :

- a) Min. working cube strength at 28th day should be at least 450 Kg. / cm.²
- b) The mix. should contain at least 380 Kg. cement per cubic metre of concrete.
- c) The concrete strength at transfer should be at least 225Kg. / cm.²
- d) The mix. should contain as low water content as is consistent with adequate workability. If it becomes necessary to add water to increase the workability the cement content should also be raised in such a way that the original value of water cement ratio is maintained.

(vii) **REINFORCEMENT** : The reinforcing bars and wires used for manufacturing of prestressed cement concrete poles shall conform to the following Indian standards.

- i) Mild steel bars conforming to IS:432/1966.
- ii) High tensile steel wires conforming to IS:1785/1966.

(viii) **WELDING AND LAPPING OF STEEL**: The high tensile steel wire shall be continuous over the entire length of the tendon. Welding shall not be allowed in any case. However, jointing or coupling be permitted provided the strength of the joint or coupling is not less than the strength of each individual wire.

7. DESIGN REQUIREMENT :

The poles shall be designed to meet the following requirements.

- a) The poles shall be planted directly in the ground with a planting depth of 1.5 metres.
- b) The working load on the poles shall be 200 Kg. applied at 0.6 Mtr. from top.
- c) The factor of safety shall not be less than 2.5.
- d) The average permanent load should be 40% of the working load.
- e) The Factor of safety against first crack load shall be 1.0

- f) The ultimate moment capacity in the longitudinal direction should be at least one fourth of that in the transverse direction.
- g) The max. compressive stress in concrete at the time of transfer of prestress should not exceed 0.8 times the cube strength.
- h) The concrete strength at transfer shall not be less than half of the 28th day strength ensured in the design i.e. : $450 \times 0.5 = 225 \text{ KG./SQ.MM.}$
- i) The concrete cover measured from outside of prestressing tendon shall be 30 mm.
- j) At the design value the first crack load the modules of rupture shall not exceed 55.2 Kg. / cm for M-45 concrete.

8. OPTIMUM DESIGN DIMENSIONS :

Bottom depth.	:	300 mm
Top depth.	:	145 mm
Breadth.	:	114 mm
No. of tensioned wire	:	16 Nos. wires of 4 mm dia.
Configuration type.	:	JdVVNL specification TN-1311

9. OTHER TECHNICAL REQUIREMENT :

A) EARTHING : Earthing shall be provided, by having continuous length of 4 mm dia G.I.wire embeded in concrete during manufacture and the ends of G.I. wire left projected from the transverse face of the poles to a length of 100 mm at 250 mm from top and 150 mm below ground level (Planting depth to be 1.5 M) The tolerance of 25 mm shall be allowed in position of earth wire. The earth wire shall not be allowed to entangle with prestressing wires.

B) EYE HOOKS : The eye hooks shall be provided on the middle of transverse face of the pole as per IS: 7321/1974 at a distance of about 2.25 metre from top and about 1.8 metre from the bottom, to facilitate the handling. The eye hooks shall be of 12 mm dia MS round and shall have an internal dia of 40 mm. The tolerance of minus 5 mm and plus 20mm in internal dia of eye hooks shall be allowed. The eye hooks in question shall be securely embedded in the pole to ensure safe handling.

C) REINFORCEMENT : The poles offered should have 8 Nos. rings of 4 mm dia HT wires rings on top side of the pole and 8 Nos. rings of 4 mm dia HT wire rings on the bottom side of the pole thus total HT wire rings should be 16 in all or 4 Nos. of 6 mm dia MS round rings on top side and 4 Nos. of 6 mm dia MS round rings on bottom side are to be provided. The minimum inter spacing of 20 mm in case of 4 mm dia HT wire rings and 30 mm in case of 6 mm dia MS round rings is to be maintained. These rings should be complete and rectangular in shape with minimum over lapping of 20 mm. No rings are to be bunched together.

D) HOLES : The poles offered should have two holes of 18 mm dia on longitudinal face of pole (broad face) to fix top hamper. The top hole shall be at the distance of 60 mm from top of pole and second hole will be at 160 mm from top of pole.

10. WORKMANSHIP :

(i) All materials used in the finished PCC poles and workmanship shall be of required quality. No deviation with technical particulars required as per this tender specification shall be allowed.

(ii) Apart from the requirements regarding the design, material, process of manufacture, dimensions shape, workmanship finishing etc., acceptability of PCC poles shall be determined by the results of various tests to evaluate their properties as stipulated in the relevant IS/specification.

11. DRAWINGS :

Approved copy of drawing is enclosed herewith the Technical Specification and bidder shall manufacture / supply the material in accordance of approved drawing of JdVVNL.

12. MARKING :

(A) The poles shall be clearly & indelibly marked with the following particulars by engraving properly at a height of 3 metres from the bottom end so as to be easily readable after erection. Marking should not be painted.

1. S.No. of pole.
2. Date, month and year of manufacturing
3. Name/mark of manufacturer.
It should be distinct and should not resemble with mark of other manufacturers and if it resembles with marking of other manufacturers then you should change your marking.
3. Length and working load 9.0 M / 200 Kg.
4. JdVVNL- TN -1311.

(B) BLACK STRIP PAINTING: A strip of 30-40 mm shall be painted on one side (transverse face) of the pole at a planting depth (1.5 Metre from bottom) with oil paint of black colour in such a manner that the black strip shall be visible above the ground. Poles without marking of black strip will not be accepted and considered as rejected.

13. INSPECTION, TESTING & CHECKING :

The inspection and testing shall be carried out at supplier's works as per relevant ISS: GTP before dispatch in accordance with the clause No.1.27 of GCC

The supplier shall incorporate the following certificate in his offer letter which should indicate Sr. No. & total No. of poles casted on different dates, as offered for the present inspection :

- a) That all the PCC poles included in the lot under the present inspection conform to the design, strength and workmanship required as per the purchase order, GTP of the specification and contract drawing under the TN-1311.
- b) That none of the PCC poles offered for the present inspection was previously rejected / not considered for inspection or tested for transverse load strength by any other inspecting officer.

The supplier shall furnish the following certificates / tests results to our Inspecting Officer at the time of inspection, if desired.

- a) The supplier shall furnish test results from the manufacturer to substantiate that HT steel wire of required quality was used in the manufacture of PCC poles under the present inspection.
- b) The supplier shall certify that cement, prestressed steel wires, M.S. Bars, aggregates and other material had been used as per the required specifications, to manufacture the PCC Poles under the present inspection.

The supplier shall arrange the required number of PCC Poles out of the offered lots as per the sampling plan under this specification for witnessing the various tests by Inspecting Officer. The poles so tested in presence of the Inspecting Officer shall be preserved for atleast 30 days from the date of inspection for subsequent checking by any other representative for the purchaser if needed. The supplier shall intimate in writing name and address of purchaser of tested poles otherwise the PBG will not be released.

The supplier shall provide the following documents to Inspecting Officer, to facilitate and authenticate the process of inspection, checking and testing.

- a) One set of copies of P.O., relevant IS and specification of TN (with the latest amendment, if any)
- b) Copy of approved Drawing.
- c) Details of all meters/ instruments / equipments to be used in the process of checking and testing of the material along with the details for their last calibration (original) certificates of calibration indicating that calibration had been done to full range on all the scales to verify that the last calibration and sealing was got done from the manufacturer or an independent test house approved by Government within one year prior to the date of inspection.

Inspection shall not be carried out further, if the above requirements are not fulfilled satisfactorily.

A. SAMPLING:

- a) In a consignment, 500 poles or a part thereof of the same overall length, same dimensions and belonging to the same batch of manufacturer shall be grouped together to constitute a lot.

For ascertaining the conformity of the materials in the lot to the requirements of the specification, samples shall be tested from each lot separately.

The number of poles to be selected from the lot shall depend on the size of the lot and shall be according to table as under:-

Sample size and criterion for conformity :

Size of lot or sub-lot in numbers (N)	Dimensional requirement		No. of poles for transverse strength test (n)
	sample size (n)	Permissible No. of defective samples	
1	2	3	4
Upto 100	10	1	1
101 to 200	15	1	3
201 to 300	20	2	4
301 to 500	30	3	5

The minimum size of lot which can be offered for inspection is 200 Nos. of pole except in case of last lot which may be for left out balance quantity. Lot size once offered for inspection cannot be reduced subsequently under the re-inspection, unless re-inspection charges for each lot / sub-lot out of the original lot is deposited.

- b) Deviation in selection of samples may be effected by the Inspecting Officer only if he thinks that the purpose of checking / testing will be better served by such deviation.

- c) The number of poles, in every lot/sub lot, which does not satisfy, the requirement of overall length, cross section and uprightness shall not exceed the corresponding number given in Col.3 of the above Table. If the number of such poles exceeds the corresponding number, supplier shall segregate the pole not confirming the requirement of specification and shall submit the remaining poles for checking. Fresh poles as per sample size indicating in Col.2 will be drawn from the remaining poles of the offered lot or sub lot and subject to similar checking. If the number of effective poles in the second sample of poles also exceeds the permissible number indicated in Col.3

then the subject lot or sub lot under inspection will be rejected without further checking. Result of all such checking shall be recorded.

d) PCC poles, in every lot/sub lot sampled for transverse load strength test shall satisfy the requirement of the test. Initially selection of sample and inspection and testing of poles will be undertaken as usual as is being done according to IS:1678/1998 and IS:2905/1989 with latest amendments. In case the samples selected satisfied the dimensional requirements and also withstand transverse load test, the lot stands cleared.

In case of one or more poles fail during transverse load test, then twice the number of originally tested shall be selected from those already selected and subjected to the tests. If these poles withstand the transverse load test the entire lot will be deemed to have passed the tests and will be cleared, but if one or more pole fails during double sampling, then leaving aside the sub-lots for which double sampling was done and where samples could not withstand transverse load test, the remaining sub-lots representing poles from which have withstood transverse load test will be accepted provided they satisfy clause No. 9.3.2 of IS:1678/1978. However, the destruction test from the sub-lots will be done by the inspecting officer on the poles on which transverse load was performed and the acceptance of these sub-lots will be on the basis of the test results observed by the inspecting officer during destruction test on the respective representative poles.

e) All the poles subject to transverse load strength test shall be reserved for at least 30 days from the date of inspection for any subsequent checking by any other representative of the purchaser, if required. These poles shall not be dispatched /supplied to the purchaser.

f) One pole from the poles subject to transverse load strength test, from every lot / sub lot, shall be destructed for following measurement/checking.

i) To measure clear thickness of concrete cover at three points one within 1.8 metre from the bottom end of the pole, the second within 0.6 meter from the top end of the pole and the third at an inter-mediate point. The mean value shall be compared with the specified value.

ii) To check Nos., size & configuration of steel reinforcement and GI earth wire.

The destructed poles shall also be preserved for at least thirty days from the date of inspection for subsequent checking by any other representative of the purchaser if required.

B) INSPECTION:

Inspection shall comprise of:

- a) Verification of offered quantity as per packing list
- b) Visual inspection for shape, workmanship and finishing of the PCC poles.
- c) Checking of dimensions as per the GTP / specification

C) WITNESS OF TESTS :

- i) On PCC poles selected for transverse load strength test as per sampling plan.
- ii) On one PCC pole from every lot/sub lot be destructed to ascertain the No., size and configuration of steel reinforcement and GI earth wire etc.

The supplier should have transverse load testing arrangements of its own.

Testing arrangement shall be preferably as specified in the relevant specification i.e. IS:1678/1978 & IS:2905/1989 (both latest amended). As per provision of Clause No.6.2.3 of IS:2905/1989 the load shall be applied at a point stipulated in the relevant IS 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 is not less than the length of the pole.

As per provision of Clause No.6.2.5 "load measurement" of IS: 2905/1989. The dynamometer or any other satisfactory method of load measurement shall be calibrated at regular intervals and capable of measuring load to the accuracy of 50 N may be adopted.

The transverse strength test on poles shall be conducted in accordance with IS 2905. A prestressed concrete pole shall be deemed not to have passed the test if cracks wider than 0.1 mm appear at a stage prior to the application of the designed transverse load at first crack and the observed ultimate transverse load is less than the designed ultimate transverse load.

14. TEST AT SITE :

The purchaser reserves the right to get the material tested after receipt of inspected poles at sites/stores and claiming any compensation or rejecting the poles if not found according to specification. All charges consequent to rejection, rectification and replacement shall be borne by the supplier.

15. TOLERANCE :

The following tolerances shall be allowed :

i)	Over all length of PCC poles.	±15 mm
ii)	Top and bottom dimension. (Breadth and depth of PCC poles)	± 3 mm
iii)	Clear concrete cover over HT steel wires (Average of measurements at three sections).	- 2 mm
iv)	Uprightness or straightness of the PCC poles.	0.5 %
v)	Internal dia of eye hook	+ 20 mm and – 5 mm
vi)	Dia of holes	± 1 mm
vii)	Diameter of HT wires as per IS: 280/1979	± 0.05 %
viii)	Diameter of GI wire as per IS:280/1979	± 2.5%
ix)	Diameter of MS rod for eye hook as per 1786/1966	± 4%

Higher dimensions of poles shall attract no penalty / deduction as it will not be considered as deviation.

16. GUARANTEED TECHNICAL PARTICULARS :

The tenderer shall furnish the guaranteed technical particulars of the PCC poles as required in the schedule-V by mentioning specific figures therein. Any item of the GTP left unfilled or simply written as per ISS etc. shall be considered as incomplete GTP and such tender is liable to be rejected.

17. TRANSPORTATION ARRANGEMENTS :

The tenderer must furnish the location of the factory and road distances from their factory site to various destinations (sub-divisional headquarters of JdVVNL) through shortest route.

The tenderers should also furnish the particulars of transportation vehicles owned by them. The tenderers who also undertake the guarantee for transportation of minimum poles daily upto consignees head quarters within stipulated delivery period shall be preferred in deciding the quantities to be ordered.

Transportation charges shall be furnished in the following manner :-

S.N	Particulars	Charges in Rs.
1	Minimum fixed charges per pole	57.00
2	Running charges per pole per Km.	

(i)	0-25 Km	0.62
(ii)	26-50 Km	1.25
(iii)	51-100 Km	1.40
(iv)	101-150 Km	1.55
(v)	151-200 Km	1.55
(vi)	201-250 Km	1.30
(vii)	251 -350 Km	1.30
(viii)	351 & above	1.30

The transportation rates are FIRM in all respect and are inclusive of unloading charges.

The transportation charges to the firms, situated outside the periphery of Nigam, shall be payable from the nearest firm's works situated inside the periphery of respective Discom or from their own works whichever is lower.

18. CRITERIA FOR ACCEPTANCE:

The inspected PCC poles should be strictly in accordance to the GTP of the specification otherwise the material shall be treated as rejected and shall not be accepted. However, the poles with some minor deviations may be accepted with deductions as per rates prescribed and in force.

Higher dimensions of poles shall not attract any penalty / deduction, as it will not be considered as deviation.

19. PRICES & PRICE VARIATION FORMULA

The prices shall be quoted on F.O.R. basis in the manner detailed in schedule of Price (Schedule-IV / BOQ) indicating details of ex-works price, Excise Duty, Sales tax/VAT, etc. The quoted prices shall be variable as per Price Variation formula given as under without any ceiling with base date **01.01.2017**.

The prices quoted shall be variable without any ceiling. The price variation shall be claimed as per **Price Variation Formula given in the Schedule-II** and shall be governed as per clause 1.10 of Instructions to bidders (Section-I) .

The purchaser shall however not bear any extra financial liability on account of supplier delaying the supplies beyond committed / stipulated delivery schedule.

20. PAYMENTS

Payment shall be made against the receipt challans duly verified from the consignee in accordance with the clause No. 1.42 of GCC.

21. QUANTITY TOLERANCE

A quantity tolerance $\pm 2\%$ (plus minus two percent) shall be allowed on ordered quantity for completion of supply.

22. DELAY IN DELIVERY & DELAY IN DESPATCH

The delay in delivery and dispatch shall be governed by the provisions of clause No. 1.24 of the GENERAL CONDITIONS OF CONTRACT (Section-II) "

23. PRICE FALL CLAUSE:

If lower rates are received / finalized in subsequent tender for this item then price fall clause shall be applicable as per clause 1.60 of the GCC.

SCHEDULE-I**SCHEDULE OF REQUIREMENT OF 9.0 Meter LONG 200 KG. PCC POLES AGAINST TN-1311 .**

S.No.	Item	Provisional qty. in Nos.	Remarks
1	Rectangular shaped solid PCC Poles conforming to REC spec. No. 24/1983 amended upto 1987 & there-after and ISS 2905/1989 latest amended) & as per requirement of section-III of this spec. in overall length of 9.0 M poles having working load of 200 KG. with factor of safety 2.5	3,04,229	
	Total	3,04,229	

SCHEDULE-II**PRICE VARIATION FORMULA**

The prices quoted shall be variable without any ceiling. The price variation shall be claimed as per **Price Variation Formula given in the specification** and shall be governed as per clause 1.10 of Instructions to bidders (Section-I) .

(a) The prices quoted shall be variable as per price variation formula without any ceiling. The price variation is allowable only for variation in the prices of High Carbon wire rod. The quoted price of poles should be based on the price of 5.5 mm high carbon wire rod having carbon content 0.76 %, as published by M/s Rashtriya Ispat Nigam Ltd (Govt. of India Undertaking) Ex-stock yard Jaipur. The base date will be **01.01.2017**.

The price variation per pole on account of variation in the prices of High Carbon wire rod is allowable as per following formula.

For every increase/decrease of Rs.50/- per MT in the average price of H/C wire rod the rate shall increase/decrease by Rs.0.71 per pole. This price variation shall be paid extra on account of HC wire rod only. The minimum unit of Rs.50/- per MT for increase/decrease of HC wire Rod shall be taken into account for allowing price variation. There is no ceiling on price variation.

The applicable price for claiming price variation on account of change in the price of HC wire rod shall be the price prevailing on the first day of calendar month, one month prior to the date of delivery of the particular lot.

(b) The date of delivery(i.e. date of readiness of material) and variable price shall be worked out in accordance to clause 1.10 of Instructions to bidders (Section-I) .

DETAILS OF APPLICABLE STANDARDS/SPECIFICATION/MANUALS :

The pole shall comply with the relevant provisions made in the following Indian Standards Specification (now BIS) with latest amendments / REC specifications.

1	REC manual No.13/1977 (part-I)	Manual on manufacturing of solid poles part-I design aspects.
2	REC manual No.13/1977 (Part.II)	Manual on manufacturing of solid PCC poles part.II manufacturing aspects.
3	REC specification No.15/1979 (amended upto 1983 & thereafter	Prestressed cement concrete poles (FOS/2.5) for 11 KV and LT lines.
4	IS:1678/1978 (Latest amended)	Specification for PCC poles for overhead power traction & telecommunication lines.
5	IS:2905/1989 (Latest amended)	Method of test for PCC poles for overhead power and telecommunication lines.
6	IS:7321/1974 (Latest amended)	Code of practice for selection handling and erection of concrete poles for overhead power and telecommunication lines.
7	IS:1343/1980(Latest amended)	Code of practice for prestressed concrete
8	IS: 456/1978 (Latest amended)	Code of practice for plain and reinforced concrete
9	IS: 1785(Latest amended)	For HT steel wires for prestressed concrete

SCHEDULE-III(A)**PRE QUALIFICATION REQUIREMENT (PQR)**

The bidder should fulfill following qualification requirements for successful participating in the tender. The bids without relevant documentary evidence in support of each qualifying requirement shall be considered non responsive & rejected.

1. STATUS OF BIDDER

- a) The bidder should be manufacturer of offered items (PCC poles). The offers from sole selling agent / authorized dealers shall not be entertained.
- b) **Old / new suppliers:-** Any bidder located within or outside the state of Rajasthan has participated for the first time in a particular Discom and meeting minimum qualification requirement has supplied the 8.0M /200Kg PCC pole / 9.0M /200Kg PCC pole (tendered material) / or of higher rating in other licensed power utility shall be treated as an old supplier. Rajasthan based firms although supplied in past but not meeting minimum quantity supplied criterion including altogether new units which have not supplied any quantity but having adequate & required manufacturing and testing facility and technical know-how of the tendered material shall be considered as new firms and would be eligible for trial order only. In case of supply made to the licensed power utility outside India, the C.A. certificate furnished by firm shall be considered.

2. PAST SUPPLY AND PERFORMANCE CRITERIA

The bidder shall meet both past supply and performance criteria as detailed below for opening of tenders.

- a) The bidder is required to quote for minimum 2% of tendered quantity, failing which the offer may be considered non responsive.
- b) The bidder should have designed, manufactured / fabricated, tested and supplied to utility / Discoms / Govt. Departments at least 2xQQ (QQ being the quoted quantity) of similar item / higher rating of tendered material / equipment in last three financial years (for quantity verification C.A. Certificate should be furnished) from the date of opening of techno-commercial bid. Material supplied under Turnkey Project shall be considered for qualifying requirement if bidder either furnishes a certificate of the Discoms / Utility that same material/equipment has been supplied to them or furnishes proof of supply i.e. receipted challans of the material / equipment supplied to Discoms / Utility.

Note: Requirement of quantity manufactured, minimum quantity to be offered and amount of Bank Guarantee to be furnished in absence of test certificate shall be reduced to 25% for Rajasthan based units.

- c) The bidder shall furnish documentary evidence in the form of certificate from C.A. in the prescribed proforma only. This prescribed proforma should be either in original or copy duly attested by the Notary. The bidder shall also sign and affix seal on the prescribed format C.A. Certificate. The certificate should have membership number with the name and address of the chartered accountant. Certificate should clearly indicate the quantity supplied, period of supply in the format prescribed. Any deviation to format or information diverted format will not be considered and rejected.

Note:-The material supplied and accepted for same/higher rating for Turnkey projects to a licensed power utility/Govt. shall be considered for the purpose of evaluating criteria. The certificate given by C.A. shall indicate above quantity separately.

3. PERFORMANCE CRITERIA

- a. If a bidder has supplied up to 50% of ordered quantity in previous tender up to date of opening of subsequent tender and scheduled delivery period expired, the bid of such bidder will not be opened in the Discom for that item.
- b. However, if the supplies have been completed for a quantity more than 50% but not completed up to date of opening of subsequent tender and scheduled delivery period expired, then quantity equal to the quantity pending in previous tender for that item shall be reduced from the subsequent tender quantity to be allocated to the bidder.

4. POOR RECORD OF PERFORMANCE AND DELIVERY

The bidders who have been black listed in any of the State Discom or with whom business relations have been severed in Jodhpur Discom shall not be considered. Severment of business relations will be done in case of following circumstances for the period and with the recovery mentioned against each:

When vendor does not accept order awarded on its accepted prices and terms and conditions and does not comply with contractual formalities	Forfeiture of EMD/cancellation of vendor registration to recover amount of EMD alongwith severment of business relations for three years from the date of issue of order.
When vendor complies with contractual formalities but does not commence supplies	Levy of maximum recovery on account of delay in delivery alongwith severment of relation for a period of two years from the date of issue of order or in next two tenders whichever is later along with forfeiture of EMD/cancellation of vendor registration.

5. (A) BLACK LISTING

After having given Show Cause Notice of 30 days, and having established & cogent reasons for blacklisting of the firm as given below, the firm should immediately be blacklisted for a period of 5 years indicating reasons of doing so, in the letter itself, and a copy of such blacklisting should be given to the firm, with the approval of CLPC:-

- (i) There are sufficient and strong reasons to believe that the supplier or his employee has been guilty of malpractices such as manhandling/misbehavior with Government official by supplier or his partner/employee, bribery, corruption or abatement of such a offence in a position where he could corrupt Nigam's official, fraud, vitiating fair tender process including substitution of or interpolation in tender, mis-representation, pilfer-aging or unauthorized use or disposal of Nigam's material issued for specific work etc.
- (ii) Where a supplier or his partner or his representative has been convicted by a court of Law for offences involving moral turpitude in relation to the business dealing or where security considerations including suspected disloyalty to the Nigam/state so warrant the blacklisting.
- (iii) If the State Bureau of Investigation or any other authorized investigating agency recommends for blacklisting after completing the investigation.

Note:- 1 If a supplier after having tendered for a supply or after negotiations gives application voluntarily vitiating the fair tendering process, it shall also tantamount to malpractice.

Note:- 2 A register containing the reasons for blacklisting the supplier as also the names of all the partner of the suppliers and the allied concerns coming within the effective influence of the blacklisted supplier will be maintained.

Note:- 3 A register of black listed supplier will be maintained which will not only include suppliers enlisted with the Enlisting Authority but also black listed suppliers in Nigam.

Note:- 4 A Black listed supplier (i) shall not be entitled for registration in any of the Discom (ii) shall not be awarded any supply order in future in any Discom

during the notified period.(iii) his registration if any shall stand cancelled immediately and his registration security /EMD/S.D. shall stand forfeited. (iv) In case of blacklisting of the firm by any one of Discom for the cogent prescribed reason(s) as stipulated above, the same shall be applicable to all the three Discoms and as a consequence of blacklisting, all the pending orders to that firm, will be cancelled in all three (3) Discoms with immediate effect. However in respect of completed / executed contract G.P. obligations as well as other liabilities shall be fulfilled by the supplier.

(B) SEVERMENT OF BUSINESS RELATION:

(a) After having given Show Cause Notice of 30 days, and having established & cogent reasons for Severment of business relation as given below, the firm should immediately be severed the business relations for a period of 2 to 3 years indicating reasons of doing so, in the letter itself, and a copy of such severment should be given to the firm, with the approval of CLPC:-

(i) The supplier continuously refuses to pay Nigam dues without showing adequate reasons and where the purchasing authority is satisfied that no reasonable dispute attracting reference to Settlement Committee or Court of Law exists for the supplier's action of non-supply.

(ii) When vendor does not accept LOA / detailed purchase order awarded on its accepted prices and terms & conditions or does not comply with the contractual formalities.

(iii) When vendor / supplier who otherwise completed contractual formalities but does not commence supplies on the date of opening of technical bid of the fresh tender / completion of schedule delivery period whichever is later.

Note-1-In case supplier does not deposit outstanding dues towards Nigam, even after completion of severment period, the period of severment will continue.

2. Severment done purely / mainly on account of non-deposition of dues against the supplier / vendor / contractor could be lifted by CLPC, if the dues are deposited prior to the expiry of such severment period.

3. Severment done by one Discom for non-supply of material and / or corresponding non-recovery of dues will not be effective in other Discoms except in respect of common purchase cases of three Discom.

4. On severment of business, the EMD / SD / vendor registration security will be forfeited.

5. The orders in execution satisfactorily will not be cancelled other than the order on which severment have been done.

(C) DEBARMENT

Reasons on which Debarment can be made:-

(i) The competent authority may debar the supplier on account of his performance or other disabilities, if it is no longer considered fit to remain under vendor registration as per his obligation under vendor registration.

(ii) If at any subsequent stage of inspection of firms after award of contract, it is found that firm does not have sufficient tech. staff or required/necessary technical equipments, the purchasing authority can debar the firm for one year or next tenders whichever is later. The debarment will be lifted only on re-inspection of firm's works; the defects noticed earlier are fully rectified to the satisfaction of Nigam.

(iii) When contract agreement executed and supplies commenced but could supply only up to 50% of ordered quantity and scheduled delivery period expired, then the firm can be debarred for one year or next tender whichever is later in that Discom only for that particular item / rating / capacity / size etc.

(iv) The suppliers who have been awarded contract for supply of material is not adhering to the periodic delivery schedule, the contract awarding authority reserve the right to terminate the contract and may debar the firm in participating in tender for a period of 2 to 3 years.

Note:-1. On debarment, the EMD / SD / Vendor Registration security shall be forfeited.

Note:-. 2. If the firm is debarred in one Discom for any reasons then the same should not be applicable in other Discom subject to exception that in case of

common Discoms purchases such debarment of a firm would be applicable to all three Discoms for that particular item and rating / capacity / size etc.

6.0 APPEALS AND APPLICATIONS:-

Appeal against the order of blacklisting, severment and debarment can be filed before BOD within a period of 3 months from the date of intimation. The letter of appeal will be addressed to the order placing authority. Who will process the case for placing the matter in B.O.D. with in a period 60 days. The BOD may reduce or waive the penalty, if sufficient reasons / supporting documents are furnished by the supplier.

GENERAL CONDITIONS : - (ALL CONDITIONS BE DULY SIGNED & SEALED)

- I) The bidder shall clearly indicate the deviations such as 'Technical Deviation & Commercial Deviations' in the prescribed proforma only. The deviations indicated elsewhere in the bid shall not be accepted.
- II) The bidder must clearly fill up each and every particular of guaranteed technical particulars annexed with Technical Specifications otherwise he will be responsible for Technical Non-responsiveness.
- III) All documents required in the prescribed format are to be furnished along with the bid itself only except an attested copy of BIS license (wherever it is required), failing which the bid will be summarily rejected.
- IV) However, a copy of BIS License may be submitted by the bidder up to the official working hours of one working day prior to the schedule / notified date of opening of price bid.

Signature of bidder
With stamp

SCHEDULE-IV-A

Must be filled in by the tenderer and attach with technical bid (Part-I)

To,

The Superintending Engineer(MM & C)
Jodhpur Vidyut Vitran Nigam Limited,
Jodhpur

Dear Sir,

With reference to your invitation to tender against specification No. JdVVNL / SE / MM&C / XEN-III / TN-1311, we agree to supply the following quantity.

S.No.	Particulars of item	Tendered quantity	Qty. offered	Justification of quantity offered as per qualifying requirement.	Remarks
1	2	3	4	5	6
	Rectangular shaped solid PCC Poles conforming to REC spec. No. 24/1983 amended upto 1987 & there-after and ISS 2905/1989 latest amended) & as per requirement of section-III of this spec. in overall length of 9 M. poles having working load of 200 KG. with factor of safety 2.5	304229			

1. The offer is valid for a period of 120 days from the next date of opening of Techno Commercial Bid of the tender.
2. The prices are variable with the base date **01.01.2017** as per price variation formula given at schedule -II
3. It is noted that the quantities as mentioned in the specification are approximate and we agree to supply any quantity as per your order.
4. The delivery shall strictly be in accordance with delivery clause. In case we fail to deliver the material, we are liable to pay recovery for delay in delivery as per clause No. 1.24 of this Section-II of this specification.
The material shall conform to your specification No. JdVVNL / SE / MM&C / XEN-III / TN-1311 and as per relevant ISS in all respect.
5. We confirm that we agree to all the terms and conditions as well as the technical stipulations of your specification No. JdVVNL / SE / MM&C / XEN-III / TN-1311 and there are no deviations other than as specified in the Schedule-VI (A&B).

Signature of tenderer
With stamp

SCHEDULE-V**GUARANTEED TECHNICAL AND OTHER PARTICULARS OF 9.0 METRE PCC POLES HAVING WORKING LOAD 200 KG WITH FACTOR OF SAFETY 2.5 UNDER TN-1311.**

S.No.	Particulars	Requirement as per GTP
1	MANUFACTURER'S NAME	
2	OFFICE ADDRESS	
3	WORKS ADDRESS	
4	STANDARDS TO WHICH THE MATERIAL SHALL CONFORM	As per specification
5	OVER ALL LENGTH	9.0 meter
6	PLANTING DEPTH	1.5 meter
7	TOP DIMENSIONS IN MM	145 x114 mm
8	BOTTOM DIMENSIONS IN MM	300 x114 mm
9	APPROXIMATE WEIGHT	545 Kg.
10	WORKING LOAD	200 Kg.
11	FACTOR OF SAFETY (F.O.S.)	2.5
12	NO. & DIA OF HT WIRE (TENSIONED)	16(4 mm dia)
13	CONFIGURATION OF HT WIRE	As per approved drawings
14	POSITION OF EARTH WIRE LENGTH AND SIZE OF WIRE	G.I. wire of 4 mm dia having continuous length with a projection of 100 mm at 250 mm from top and 150 mm from below ground level.
15	DIMENSIONS AND POSITION OF EYE HOOKS	2 Nos.of Eye hook of 12 mm dia M.S. round having internal dia of 40 mm at 2.25 metre from top and 1.80 metre from bottom on the middle of transverse face of the pole as per IS: 7321/1974.
16	REINFORCEMENT (SIZE AND NO. OF RINGS)	8 Nos. of rings of 4 mm dia HT wires on top and 8 Nos. of rings on bottom (both ends) with minimum inter spacing of 20 mm.
17	CONCRETE COVER	30 mm
18	MARKING ON THE POLES	Marking should be engraved on transverse face
19	BLACK STRIP	A strip of 30-40 mm shall be painted with oil paint of Black colour, on one side (transverse face) of the pole at a planting depth of 1.5 Metre from bottom.
20	HOLES POSITION	2 holes of 18 mm dia at 60 mm and 160 mm from top on longitudinal face of the pole(broad face).
21	ULTIMATE TENSILE STRENGTH	17500 Kg./ sq.cm
22	CONCRETE QUANTITY PER POLE	0.228M ³
23	CONCRETE GRADE	M-45

Note:- Max. tension in wire should not exceed 80% of its ultimate tensile strength.

Signature of the Bidder
Name_____

Designation_____

Common authorized seal of bidder

Schedule – VI (A)**JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking****DEPARTURE / DEVIATION FROM TECHNICAL SPECIFICATION**

The bidder shall state under this schedule the departure from the Purchaser's specification in respect of technical is as under:-

S.No.	Main Deviations from Technical Specification.
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Certified that we agree to all the technical specification of the NIT except for the deviation to the extent indicated above.

(Signature)
Name & Designation
with seal of the bidder.

Schedule – VI (B)**JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking****DEPARTURE FROM COMMERCIAL TERMS & CONDITIONS OF THE
SPECIFICATION**

The bidder shall state under this schedule the departure from the Purchaser's specification in respect of Commercial terms & conditions:-

S.No.	Main Deviations from Specification.
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Certified that we agree to all the commercial terms & conditions as laid down in General Conditions of Contract to the specification except for the deviation to the extent indicated above.

(Signature)
Name & Designation
with seal of the bidder.

Schedule – VII

JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking

LIST OF PAST SUPPLIES

The bidder shall state under this schedule whether material and equipments, similar to those offered in the tender have been previously supplied by him. A list shall be given of such orders executed by him together with information regarding the names of purchasing organizations, quantities supplied and when the supplies were affected. This list should be in form given below:-

S.No.	Detailed particulars of items supplied	Qty in MT	Order No. & Date	Name & details of purchasing authority	Date of Completion
1	2	3	4	5	6

If executed partially to be mentioned (Qty. in M.T.)	whether still to be executed	Delivery stipulated in order	Remarks
7	8	9	10

Note: Separate schedules are to be furnished by the bidder for past supply to the JdVVNL, Jodhpur, other State Electricity Boards and other Departments / Organisations.

(Signature)
 Name & Designation
 with seal of the bidder.

Schedule-VII-A**JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking****TO WHOMSOEVER IT MAY CONCERN**

This is to certify that M/s _____ have designed, manufactured / fabricated ,tested and supplied similar item/higher rating of tendered material / equipments in last three financial years from the date of opening of Techno-Commercial bid to the Utilities / Discoms / Government Department, as detailed out below:-

S.No.	Financial year in which material supplied	Particulars of items supplied	Name and particulars of purchasing authority	Order No. & date	Unit	Quantity ordered	Value in Rs.	Actual quantity supplied against the order	Value	Remarks
1	2	3	4	5	6	7	8	9	10	11

The above particulars are true and correct based on explanations, records and books of accounts produced before us. Further the above certificate issued on the request of the Company.

Signature

Signature of

Name & designation
With seal of the Bidder

C.A. of firm
With seal & Membership No

SCHEDULE-VIII**JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking****DELIVERY SCHEDULE****PART-A**

The delivery schedule of the material by the Purchaser is as mentioned hereunder:-

S.No.	Particular of material	Delivery
	Rectangular shaped solid PCC Poles conforming to REC spec. No. 24/1983 amended upto 1987 & there-after and ISS 2905/1989 latest amended) & as per requirement of section-III of this spec. in overall length of 9.0 M poles having working load of 200 KG. with factor of safety 2.5	The max. commencement period allowed shall be 40 days from the date of receipt of LOA and entire ordered quantity shall be completed in eight months thereafter at equal monthly rate.

Note:- In case ordered quantity is different than quoted quantity, then monthly delivery shall be adjusted proportionately. Tenders in which monthly delivery schedule is not indicated shall be ignored.

PART-B

In case bidder deviates from the delivery schedule mentioned by the purchaser in Part-A then the delivery schedule of the material by the bidder shall be indicated / mentioned as under:-

S.No.	Particular of material	Commencement and monthly delivery
	Rectangular shaped solid PCC Poles conforming to REC spec. No. 24/1983 amended up to 1987 & there-after and ISS 2905/1989 latest amended) & as per requirement of section-III of this spec. in overall length of 9.0 M poles having working load of 200 KG. with factor of safety 2.5	

(i) During the commencement period the contractual formalities shall be got completed.

Signature
Name & Designation
With seal of the bidder

Schedule – IX**JODHPUR VIDYUT VITRAN NIGAM LIMITED****A Govt. of Rajasthan Undertaking**

List of Equipments and Technical Hands Available with the Firm

(To be filled in by the bidders & enclosed with the bid)

Manufacturers and / or their authorized agents who are quoting against this bid are requested to furnish the following information along-with the bid. The Purchaser will have the discretion to ignore the bid without the under noted particulars and/or ignore the bid particulars.

1. Name and Address of Manufacturer.
2. Place where works exist.
3. Details of machinery particularly with B.H.P. of each item installed.
4. Details of staff employed in the works.
5. Date when started the manufacturing of item under reference.
6. List of items manufactured.
7. Literature and drawings of items manufactured showing their description, size, design and other important technical particulars.
8. Details of order so far, executed alongwith the names of organization to whom supplied.
9. Manufacturing capacity.
10. Is the workshop open for inspection by the representative of the board, if required?
11. Statement of financial resources and Banking Reference along with Balance-Sheet for previous two years.
12. Testing facilities available for the manufactured articles in the testing laboratory of works.
13. Whether the Firm is a small/medium/large scale industry.
14. Registration No. with :-
 - i. Small Scale, National/State.
 - ii. DGTD
 - iii. State Industries Department.

(Signature)
Name & Designation
with seal of the bidder.