



RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LTD.

An ISO 9001: 2000 Certified Company

OFFICE OF THE SUPERINTENDING ENGINEER

(TRANSMISSION LINE PROCUREMENT CIRCLE)

M. M. Building of RVPN, Old Power House Premises (Back Side),
Near Ram Mandir, Bani Park, Jaipur – 302006.

Tel. No. 0141 – 2208916; Fax No. 0141 – 2208916, 2208921

TENDER SPECIFICATION NO. RVPN/ SE/ TLPC/ STEEL / A-IV / TN-3745
FOR FABRICATION, GALVANISING, TESTING AND SUPPLY
OF COMPLETE PACKAGE OF GALVANISED STEEL STRUCTURES
ALONG WITH REQUIRED G. I. BOLTS WITH NUTS (ISI MARKED),
SPRING WASHERS, ETC. FOR 220 KV & 132 KV GRID SUB-STATIONS.

LAST DATE OF RECEIPT OF TENDER	: 30.08.2011 (Up to 02.30 PM)
DUE DATE OF OPENING	: 30.08.2011 (At 03.00 PM)
EARNEST MONEY	: Rs. 1,00,000/- (Rs. One Lac only) / Exemption Certificate or Vendor Registration Certificate of Category 'A'
COST OF SPECIFICATION	: Rs. 2000.00 (Rs. Two Thousand only)
VALIDITY	: 120 days from the date of opening of tender

IMPORTANT NOTE:

1. Furnishing of Earnest Money / valid exemption certificate as per clause No. 1.03 of Section – I of this specification is essential otherwise the tender offer will not be opened. However the Vendors who have registration with RVPN under class “A” under vendor registration scheme of RVPN or Central / State Govt. Undertakings / Corporation or Company are only exempted from furnishing of Earnest money as per purchase manual Clause 25.4 on production of an attested copy of valid Vendor Registration along with copy of valid BG furnished against vendors registration or documentary evidence in support of their being Govt. (Central / State) Undertaking / Corporation or Company. **EMD, if required shall be furnished through DD / Pay order drawn in favour of Accounts Officer (TLPC), RVPN Ltd., Jaipur.**

2. Technical and commercial deviations, if any, shall only be mentioned in Schedule – VI A & VI B “**Departure from the Specification**” attached with this specification. Mentioning of such deviations elsewhere in their offer will not be considered as deviation. The printed terms and conditions of firms, if any, attached with the tender will not be considered. RVPN shall have right to accept or reject these deviations.

3. (i) The tenderers shall quote both the Ex-works and FOR Destination prices separately indicating the freight and insurance charges in Schedule – IV. They will also indicate the prevailing rates of Excise Duty, Education Cess on ED and Sales Tax (whether inclusive or Exclusive in the quoted prices). The schedule – IV should be packed in “**Price Bid**” envelope. If Schedule – IV is not filled completely the offer is likely to be ignored.

(ii) The tenders are also required to indicate the quantity quoted in Schedule – IV ‘A’ and attach the same with technical bid (Part – I).

4. The prices quoted shall be variable based on the basic price as per price variation formula enclosed at Annexure – IV A, B, C and D. **The base date for price variation shall be 01.07.2011 irrespective of the date of opening of tender.**

5. The tender documents should be addressed to Superintending Engineer (TLPC), MM Building of RVPN, Old Power House Premises (Back Side), Near Ram Mandir, Bani Park, Jaipur – 302 006.

6. The tender offer shall be furnished as per clause 1.02 (i) of Section – I.

7. Offers of Bids without, Schedule – III to IX and without relevant documents with respect to “**Qualifying Requirement**” is likely to be ignored.

8. The tender shall be furnished in single copy only.

9. Tenderers shall indicate in their bid the name and complete address of excise authorities under whose jurisdiction their works / office falls.

10. Any cutting / overwriting in the figures of the tendered documents should also be clarified / indicated in the words duly signed.

11. RVPN has the right to reject any offer on the basis of track record of poor performance in execution of previous order / material supplied / after sales service while evaluating the technical bid (Part – I).

12. Deviation of any kind shall not be quoted in price bid, if found quoted, the same shall be ignored.

13. The purchaser will respond in writing to any request for clarification on tender documents which it receives not later than 15 days prior to deadline for submission of tender, after which no correspondence shall be entertained.

14. The bidders are required to furnish the clarification / confirmation / documents sought subsequent to opening of bid within specified time failing which, the case shall be finalised / decided on the basis of available information. The responsibility of being ignored on account of delay in furnishing of desired information/ documents shall be of the bidder.

15. The year-wise past supplies for the last five years for galvanised steel structures including the supplies made to RVPN may be furnished in Schedule – VII.

16. As per notification dated 24.3.2005 Rajasthan State Entry Tax shall be applicable on outside Rajasthan firm w.e.f. 24.03.2005 on various steel sections. The entry tax shall be borne by RRVN on FORD price. However same will be considered while evaluating the prices. The present rate of entry tax is @ 4%. Any increase in entry tax beyond delivery schedule shall be to the supplier’s account.

17. The following facilities to be provided by the supplier at his own costs to the inspecting officer of RVPN (Applicable in case ordered cost of material is more than 50 lacs.
- (i) Suitable accommodation to the inspecting officer of RVPN.
 - (ii) In case of joint inspection, single or shared double room accommodation shall be provided.
 - (iii) Local conveyance between arrival point, place of stay, works and departure point.
 - (iv) The firm shall assist in arranging return ticket and reservation on the request of Inspecting officer for which payment shall be made by the inspecting officer.
18. The provisions of price fall clause as mentioned at Clause no. 1.60 of General Conditions of Contract – Sec. - II will be applicable w.e.f. the date of opening of “Price Bid” of the subsequent tender.
19. All commercial terms & conditions shall as per GCC (Schedule-II) (Page 1 to 40), its addendum / corrigendum (Page 1 to 3) and its further amendment enclosed at Appendix-II.
20. The bidder, if is a Micro, Small or Medium enterprise as per the Micro, Small & Medium Enterprise Development Act, 2006 (MSMED Act 2006) and registered with the authorities under the above Act for the items / services covered under this tender, then the party has to indicate the Entrepreneurs Memorandum No. (Twelve Digit) and enclose a copy of the certificate issued by the Authorities under the MSMED Act, 2006.
21. Payment shall be made to the supplier/ contractors through “Real Time Gross Settlement System” (RTGS) / “National Electronic fund Transfer” (NEFT) for quick and safe transfer of funds across the country. The charges for transfer through RTGS / NEFT shall be on the part of the supplier/ contractor. In case of order, the supplier/ contractor shall furnish particulars to the payment making authorities of RVPN in prescribed format.

(Please note that bids received after specified time on due date of opening will not be accepted and such offer shall be ignored).

Superintending Engineer (TLPC)

LIST OF DOCUMENTS OF TENDER SPECIFICATION
(No. RVPN / SE / TLPC / STEEL / A-IV / TN - 3745.)

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**QUALIFYING REQUIREMENTS FOR SUPPLY
OF COMPLETE PACKAGE OF GALVANISED STEEL STRUCTURES
ALONG WITH REQUIRED G. I. BOLTS WITH NUTS (ISI MARKED),
SPRING WASHERS, ETC. FOR 220 KV & 132 KV GRID SUB-STATIONS.**

1.0 Status of Bidder:

a) The bidder should be a manufacturer.

b) The bidder may also quote as sole distributor / sole selling agent provided the manufacturer furnishes valid authorization in prescribed proforma at **Annexure – I** in favour of the bidder furnishing the bid and the manufacturer fulfils the qualifying requirement as provided in the bid document.

2.0 Past Supply & Galvanization Criteria:

The bidders shall meet both the past supply & galvanization criteria as detailed below:-

2.01 Past Supply Criteria:

2.01.1 The bidder should have supplied a minimum 40% of the NIT quantity of following items in any one year (i.e. continuous period of 12 months) during the last five years as on the date of technical bid opening to meet the past supply criteria for full NIT quantity.

- a) Galvanised Transmission Line Towers and / or
- b) Sub-station Structures and / or
- c) Telecom Towers and / or
- d) *MS fabricated items, sub-station structures, cross arms, top hampers etc.*

NOTE:

The bidders, who meet past supply criteria of qualifying requirement on the basis of supply of MS fabricated items, sub-station structures, cross arms, top hampers etc. as at 2.01.1 (d) above shall be considered for trial order (10% of quantity to be purchased) only.

2.01.2 In case of those bidders who have supplied less than 40% of the NIT quantity but more than 20% of NIT quantity in any one year (i.e. continuous period of 12 months) during last five years as on the date of technical bid opening, the quantity for which the bid will be considered to be meeting the past supply criteria shall be worked out proportionately on the basis of quantity supplied (i.e. to qualify for full NIT quantity, the quantity supplied is to be 40% of NIT quantity).

2.01.3 The bids of those bidders who have supplied less than 20% NIT quantity in one year (i.e. continuous period of 12 months) during last five years as on the date of technical bid opening, will be considered non-responsive.

2.01.4 In support of fulfillment of the past supply criteria, the bidder shall furnish documentary evidence in the form of certificate from Chartered Accountant. This certificate should be either in original or copy duly attested by Notary. The bidder shall also sign and affix seal on the C.A. Certificate. The certificate should have membership number with the name & address of the chartered accountant. It should clearly indicate the quantity supplied, period of supply.

NOTE:

In case the quantity worked out for past supply on the basis of percentages is in fraction then the fraction below 0.5 will be ignored and in case the fraction is either 0.5 or higher then next whole number will be considered.

2.02 Galvanization Criteria for Bidder / Sub-vendor (from whom the bidder proposes to get material galvanized).

2.02.1 The bidder should have his own galvanizing plant.

2.02.2 In case galvanizing plant is not available with the bidder, he shall submit a confirmatory letter from such sub-vendor from whom he proposes to get the material galvanized, in proforma at Annexure – I (A).

2.03 All bought out items like G. I. Bolts & Nuts, Spring Washers, etc. shall conform to relevant IS and shall be supplied from the approved vendors as per list mentioned in the Clause No. 4.0 'FASTENERS; G. I. Bolts & Nuts and Washers' of Section – III of the technical specification. The G. I. Bolts & Nuts shall have ISI certification mark.

3.01 The bids of only those bidders will be considered to be qualified for price bid opening who meet the qualifying criteria at 1 to 2 above. Such bidders shall however quote for minimum 20% of NIT quantity, failing which the offer will be considered non-responsive.

4.0 **Poor Record of Performance and Delivery:**

4.01 RVPN reserves the right to reject any offer on the basis of poor after sales service and performance of the material supplied by the bidder against the previous orders. For this purpose the orders executed by bidder up to last three years (as on the date of bid opening) for the same items in RVPN shall be considered.

5.0 The bids of existing suppliers will not be considered for opening the price bid in case of the following:-

- (i) The bidders who are defaulters for 25% or more quantity for more than 6 months or any quantity for more than 12 months in making the supplies against order placed during last three years as on the date of technical bid opening beyond the overall delivery schedule for the total ordered quantity.
- (ii) The bids of firms, which have been debarred, black listed or with whom business relations have been severed.

6.0 The following firms are exempted from submitting the requisite documents towards past supply criteria as detailed below:

- (a) M/s N.L. Engineers P. Ltd., Mohali.
- (b) M/s Techno Engineering Co., Chandigarh.

7.0 **Trial order**

- a) Where the price offered by any qualified firm/bidder which is new to RVPN is L-1 or lower than the price quoted by qualified regular supplier, such new bidder will be considered for placement of trial order only. The trial order for a particular item shall not generally exceed 10% of the total quantity considered for placement of order.

- b) However in case of purchase of any special/ uncommon items where there are not many qualified regular suppliers or where only new bidder(s) get qualified for regular/common item or the regular bidder is not qualified for the NIT quantity /balance quantity after allocating the trial order quantity to new bidder, or regular bidder has not quoted for full NIT quantity or for any other reasons which the purchase committee may feel appropriate, this ceiling/ restriction can be relaxed by the purchase committee competent to decide the purchase.
- c) In other case of purchase of regular/common items, the ceiling of 10% may be relaxed by the CMD level purchase committee.
- d) As far as possible, the material received under the trial order will be put to use promptly with a view to watching its suitability/ performance. The firms executing trial order will be considered for placement of next order as regular supplier in case the performance of the material/ equipment supplied by the firm is found satisfactory for at least 12 months period.
- e) In respect of items where performance criteria is specified in pre qualification requirement, if the performance period of 12 months specified as above is not over till the date of opening of technical bid of the subsequent tender for the same item, the bid of the firm executing trial order may be considered for price bid opening for the trial order again subject to the condition that the firm is meeting the P.Q.R. and has completed the supply of trial order placed on it within specified overall delivery schedule of total ordered quantity.

For items where the performance criteria is not stipulated in P.Q.R. and the performance period of 12 months specified as above is not over prior to the date of technical bid opening, the price bid of the firm executing trial order may be considered for price bid opening as regular supplier subject to the condition that the bidder has supplied the ordered quantity within the stipulated overall delivery schedule.

- 8.0 RVPN reserves the right to accept minor deviations in Qualifying requirement & Techno-Commercial Conditions on the merits.

ANNEXURE – I

MANUFACTURERS' AUTHORIZATION FORM

(To be furnished only when bidder is quoting as Sole Distributor / Sole Selling Agent of any manufacturer)

No. _____ dated _____

To

Dear Sir(s),

NIT Under (TN No. _____) for supply of _____ (item)

We _____ who are established and reputable manufacturers of _____ (name & descriptions of goods offered) having factory at _____ (address of factory) do hereby authorize M/s _____ (Name and address of Agent) to submit a bid, and sign the contract with you for the above goods manufactured by us against the above NIT under TN No. _____

No company or firm or individual other than M/s _____ are authorized to bid, and conclude the contract for the above goods manufactured by us against this specific NIT.

We hereby extend our full guarantee and warranty as per the General Conditions of Contract appended with specification for the goods and services offered for supply by the above firm against this NIT.

Yours faithfully,

(Name of manufacturer)

Note: This letter of authority should be on the letter head of the manufacturer and should be signed by a person competent and having the power of attorney to legally bind the manufacturer. It should be included by the Bidder in its bid.

ANNEXURE – I (A)

(Certificate to be furnished by the Sub-vendor from which the bidder proposes to get the steel structures galvanized)

CERTIFICATE

We hereby undertake that we shall Galvanize Substation Steel Structures as quoted by M/s. _____ (the bidder) to R. R. V. P. N. L. against NIT No. TN-3745.

Signature
(Name and designation of sub-vendor)

SECTION - III

TECHNICAL SPECIFICATION FOR FABRICATION, GALVANISING, TESTING AND SUPPLY OF COMPLETE PACKAGE OF GALVANISED STEEL STRUCTURES ALONG WITH REQUIRED G. I. BOLTS AND NUTS (ISI MARKED), SPRING WASHERS, ETC. FOR 220 KV & 132 KV GRID SUB-STATIONS.

1.0 SCOPE:

1.1 This specification covers fabrication, galvanization testing & delivery of the structures as a complete package along with required GI bolts with nuts (ISI marked) & Electro-galvanized spring washers, etc. for 132 kV & 220 kV grid sub-stations, complete in all respect as per the structural drawings to be provided by the purchaser to the successful bidder who in turn shall prepare model assemblies after developing shop drawings. After approval of model assembly, the final bill of material for the purpose of payment shall be prepared by the bidder and shall be submitted for approval to the purchaser. The tentative steel sections generally used in each type of structure are enclosed at Annexure – III.

The scope also includes loading at supplier's works and unloading & stacking at consignee's store / site.

2.0 STANDARDS:

2.1 All materials shall comply in all respect with the requirements of the latest edition of the following relevant Indian Standard except as modified by this specification. Where the relevant ISS is not available, the material should comply the latest BSS.

S. No.	Indian Standards	Title
1.	IS: 209	Specification for Zinc ingots
2.	IS: 802	Code of practice for use of structural steel in overhead transmission line towers
	PART – I	Material, Loads and permissible stress
	PART – II	Fabrication, Galvanising, Inspection and packing.
	PART – III	Testing
3.	IS: 808	Dimensions for Hot Rolled Steel Beam, Column Channel and Angle Sections.
4.	IS: 1367	Technical supply conditions for threaded steel fasteners.
	PART – III	Mechanical properties of Fasteners made of carbon Steel and alloy Steel – Bolts, Screws and Studs.
	PART – 6	Mechanical properties & test methods for nuts with specified Proof loads.
	PART – XIII	Hot dip galvanised coatings on threaded Fasteners

S. No.	Indian Standards	Title
5.	IS: 1573	Electro-plated coating for Zinc on iron and steel
6.	IS: 1852	Specification for Rolling and Cutting Tolerances for Hot Rolled Steel products.
7.	IS: 2016	Specification for Plain Washers
8.	IS: 2062	Steel for General Structural Purposes
9.	IS: 2629	Recommended practice for hot dip galvanising of Iron and Steel.
10.	IS: 2633	Method of testing uniformity of Coating of Zinc coated articles
11.	IS: 3063	Fasteners: Single coil rectangular section Spring Lock Washers.
12.	IS: 4072	Specification for Steel for Spring Washers
13.	IS: 4759	Hot-dip Zinc coating on structural steel and other allied products
14.	IS: 5369	General requirement for Plain Washer and Lock Washers
15.	IS: 6610	Specification for heavy Washers for Steel Structures
16.	IS: 6745	Methods of determination of mass of zinc coating on zinc coated iron and steel articles.
17.	IS: 6821	Method for sampling non threaded Fasteners
18.	IS: 12427	Fasteners – Threaded Steel Fasteners – Hexagon head Transmission Tower bolts.

3.0 **MATERIALS:**

3.1 The structure members should be made/fabricated from steel sections conforming to IS: 2062 (latest amended edition).

3.2 Procurement of zinc and all the steel material required for the fabrication of structures and fasteners such as angles, plates, flats, channel, rods, etc. shall be arranged by the bidder at his cost. The rate quoted for supply of structures shall include the cost of steel, fasteners and zinc also. The procurement of steel section used in the fabrication shall be the responsibility of the bidder and the purchaser will not be responsible for any extra cost of any type due to replacement of designed section by higher section in case of non-availability of designed sections.

3.3 The bidder shall make his own arrangements for the procurement of steel sections before commencement of works and of sufficient quantity of electrolytic zinc of proper quality for galvanising structure members & fasteners. The purchaser shall be at liberty to have the samples of steel and zinc used in structures & fasteners, test checked in any laboratory at his own cost and reject the particular supply if it is observed below standard. However G. I. bolts and nuts should be of ISI mark.

3.4 All raw material required for the fabrication and galvanisation etc, and for complete execution of work shall be stocked in adequate quantity by the bidder to ensure that the progress of the work is not jeopardized. No relaxation in the delivery time shall be allowed on the pretext of non-availability or short supply of raw materials / Bolts, nuts and spring washers etc. which may be bought out items.

4.0 FASTENERS: G. I. BOLTS & NUTS AND WASHERS:

G. I. Bolts & Nuts, Pack Washers / Square Washers & Spring Washers shall be, used for joining the columns & beam members & shall be arranged by the bidder, more than 5% of the actual requirement.

4.1 All Bolts shall conform to IS: 12427 & nuts shall conform to IS: 1363 (Part – III). The G. I. Bolts & Nuts should be ISI marked and shall be supplied from the following approved vendors only:

- i) M/s. A. V. Forgings, Mohali.
- ii) M/s. Ravi Engineers, Amritsar.
- iii) M/s GKW, Kolkata.
- iv) M/s. Karamtara Fasteners, Mumbai.
- v) M/s. Nexo Ind. Pvt. Ltd., Ludhiana.
- vi) M/s. Ananad Bolts, Ludhiana.
- vii) M/s. Techman (India), Chandigarh
- viii) M/s. N. L. Engineers Pvt. Ltd., Mohali.
- ix) M/s. Deepak Fasteners, Ludhiana.
- x) M/s. Forex Fasteners, Ludhiana.
- xi) M/s. Garg Fasteners.

G. I. Bolts & Nuts shall be galvanised and shall have hexagonal heads and nuts, the heads being forged out of solid steel rods and shall be truly concentric and square with the shank. The shank shall be perfectly straight.

4.2 Fully threaded bolts shall not be used. The length of the bolts should be such that the threaded portion shall not extend into the place of contact of the members.

4.3 All Bolts shall be threaded to take the full depth of the nut and threaded far enough to permit firm gripping of the members, but not any further. It shall be ensured that the threaded portion of each bolt protrudes not less than 3mm and not more than 8mm when fully tightened. All nuts shall fit hand tight to the point where the shank of the bolt connects to the head.

4.4 Flat and tapered washers shall be provided wherever necessary. Spring washers shall be provided for insertion under all nuts. These washers shall be of electro-galvanised steel and of the positive lock type. Their thickness shall be 3.5 mm for 16 mm dia. bolts and 2.5 mm for 12 mm dia. bolts. They shall be supplied from the following approved vendors only:

- i) M/s. Springlock Industries, Vadodara.
- ii) M/s Chempromech Engineers, Nagpur.
- iii) M/s. Forbes & Gokak Ltd., Mumbai.
- iv) M/s. Navin Metal Industries, Kolkata.
- v) M/s. Nexo Ind. Pvt. Ltd., Ludhiana.
- vi) M/s. N. L. Engineers Pvt. Ltd., Mohali.
- vii) M/s. Royal Springlock industries, Ludhiana.
- viii) M/s. Deepak Fasteners, Ludhiana.
- ix) M/s. Forex Fasteners, Ludhiana.

4.5 Insulator strings and earth wire clamp attachments: For attachment of tension / suspension insulator strings a suitable swinging hanger on the structure (Beam) shall be provided so as to obtain requisite clearance under extreme swinging conditions and free swinging of the string. The hanger shall be designed to withstand load required as per design.

5.0 DETAILS OF STRUCTURES FOR FABRICATION:

The type of structures along with their unit weight and sections that shall be used are specified in the Annexure – II & III for 220 / 132 / 33 kV grid sub stations. The total tonnage is about **5605 MT**.

6.0 QUANTITIES:

The quantity required is about **5605 MT** for various structures which indicate only provisional quantity, however the net quantity to be considered shall be determined later on at the time of finalisation of this tender. Purchaser also reserves the right to change the quantities of type of structures ordered, keeping the number of GSS for which the structures are required as constant, during the currency of contract. The purchaser also reserves the right to split the quantity and to entrust the order for the supply on one or more suppliers. The tenderer shall agree to supply part quantity ordered on him at the rates/prices mentioned in the Bid and accepted by the purchaser.

7.0 WEIGHTS:

The weight of structure shall mean the weight of structures calculated by using standard sectional weights of all steel structural members of the sizes indicated in the fabrication drawings and / or subsequently revised drawings and bill of material without taking into consideration the reduction in weight due to drilling of bolt-holes, skew cuts, chamfering etc. or the increase in weight due to galvanisation.

The bidder shall quote per MT rate for complete package of structures along with its fasteners. The weight of complete package shall be the sum of weight of structures and weight of fasteners viz. bolts & nuts, spring washers and flat / pack washers.

8.0 DRAWING AND MODEL ASSEMBLY:

The structural drawings of each structure shall be given to the successful Bidders. The successful bidders shall develop shop drawings of individual members based on these structural drawings & shall offer one set of model assembly within 30 days of issue of purchase order & issue of drawings of ordered structures to them for checking / approval before commencement of mass fabrication. Such model assembly shall form part of the supply. Any delay for providing model assemblies beyond 30 days shall be to the supplier's account.

After successful checking of model assembly of structure(s) the bidder shall furnish 03(THREE) sets of drawings and Bill of Materials to the purchaser for approval. Out of which 01 (ONE) set shall be returned after approval. After approval the supplier shall furnish 15 (FIFTEEN) sets of the approved drawings and Bill of materials to this office. In addition the supplier shall furnish auto positive / tracing for reproduction of these drawings. Instead of auto positive, CD duly loaded with drawings & BOM in Auto CAD format may be furnished.

9.0 FABRICATION AND WORKMANSHIP:

The fabrication of structures shall be in accordance with the following:

9.1 All parts of the structures shall be fabricated in accordance with the shop drawings to be developed by the successful tenderer as per the structural drawings to be provided by the purchaser and to be approved by the purchaser.

Such shop drawing, containing complete information necessary for fabrication of the component parts of the structures shall be prepared. These drawings shall clearly show the member sizes, length and marks, hole positions, gauge lines, bend lines, edge distances, amount of chipping, notching etc.

9.2 In the case of members to be bent, the shop drawings will indicate provision for the variation in length to be made.

9.3 Structures shall be of stub construction. Unless otherwise specified, welding at any point shall not be permitted.

9.4 The structures shall be accurately fabricated to bolt together easily on the side without any undue strain on the structure members or in the bolt, otherwise, the structure or part of it shall be rejected.

9.5 No bolt holes shall be more than 1.5 mm bigger than the corresponding bolt diameter.

9.6 Workmanship and finish shall correspond to the best modern fabrication practice. All steel sections before any work is done on them shall be carefully levelled, straightened and made true to method which shall not injure the material so that when assembled the adjacent surfaces are in close contact throughout. No rough edges shall be permitted anywhere throughout the work.

9.7 Cutting may be effected by shearing cropping, flame cutting or sawing. The surfaces so cut out shall be clean, smooth, reasonably square and free from any distortion.

9.8 In general all fabrication work shall conform to provisions of IS: 802 (Part – I) – with latest amendment. However the details given in this specification shall prevail in the specified items.

10.0 DRILLING AND PUNCHING:

10.1 All steel sections, before any cutting work is started; shall be carefully straightened and trued by pressure and not by hammering. They shall again be trued up after being punched and drilled. No rough edges fresh from shear shall be left. All sheared and cut-ends shall be flaked off.

10.2 Holes for bolts shall be drilled or punched through jig but drilled holes shall be preferred. All holes in material over 12 mm thick must be drilled through the plates and sections forming the joint in one operation. The holes near the bend line of a bent member, on both sides of bend line, shall be punched/ drilled after bending and relative position of these holes shall be maintained with the use of proper template/jigs and fixtures.

10.3 Punched holes must be square to the plates and the walls of the holes paralleled. The following tolerance in accuracy of punched holes is permissible:-

- i) Holes must be perfectly circular and no tolerance in this respect is permissible.
- ii) The maximum allowable difference in diameter of the holes on the two sides of plates or angle is 0.8 mm i.e. the allowable taper in a punched hole should not exceed 0.8 mm on diameter.
- iii) Holes must be square with the plates or Angles and slant holes will not be permitted.

All burrs left by drill or punch shall be removed completely. The tenderer shall state clearly the extent of punching covered by his tender. When the structure members are in position, the holes shall be truly opposite to each other. Drifting or riming to enlarge defective holes shall not be permitted. Minimum edge distance from the centre of any bolt holes shall not be less than what has been indicated hereunder:

Diameter of bolts	Minimum flange width of sections	Minimum rolled edge distance	Minimum sheared edge distance
16 mm	45 mm	20 mm	23 mm

11.0 ERECTION MARK:

Each individual structure member shall carry a code number conforming to the component number given to it in the fabrication drawings/bill of material. The code number of approved sizes shall be stamped with a metal die on the member before galvanizing and shall be legible after galvanisation. The letters indicating the different types of structures shall precede the code number. The name of the manufacturers in suitable code shall also be stamped with metal die. These markings shall be with marking dies of 16 mm size.

12.0 GALVANISING:

All members of the structures shall be galvanised. Galvanising shall be done after all fabrication work is completed. Galvanising of the members of the structure shall conform to IS: 4759; with latest amendment.

13.0 PACKING:

The material shall be boxed or bundled for transport in the following manner:

13.1 Angles shall be packed in bundles securely wrapped four times around at each end and every foot with No. 9 SWG gauge wire with ends twisted tightly. Gross weight of any bundle shall not exceed approximately 450 Kg.

13.2 Cleat angles, brackets, filler plates and similar loose pieces shall be nested and bolted together in multiples and securely wired together through holes, wrapped round at least four times with No. 9 SWG gauge wire and ends twisted tightly. Gross weight of each bundle shall not exceed approximately 70 Kg.

13.3 The packing shall avoid losses / damages during transit.

13.4 Accessories such as Bolts & Nuts, spring washers, U-Bolts with nuts and flat washers / pack washers shall be packed in double gunny bags duly tagged / labelled to show contents in them.

14.0 MARKING ON PACKING:

14.1 Each bundle or package shall have the following marking on it :

- (i) The name and designation of the consignee (to be furnished by the purchaser).
- (ii) Ultimate destination as required by the purchaser.
- (iii) The relevant marks and number of members, or reference number of small components like gusset plates, various attachments, etc. for each identification.

14.2 The marking shall be stencilled in indelible ink on the top members in the bundles of structures steel. Detailed despatch instructions shall be asked for by the bidder from the SE (TLPC), RVPN, Jaipur at least four weeks ahead of the scheduled date of despatch.

15.0 FINANCIAL RESOURCES AND EXPERIENCE:

The tenderer shall submit along with his tender a statement regarding his previous experience in performing similar or comparable work and of the business and technical organisation, financial resources and manufacturing facilities available. The tenderer is further requested to furnish the information particularly on the following points:

- (i) Standing of the firm as manufacturer and designer of Grid Sub-Station structures.
- (ii) Approximate tonnage of GSS Structures produced so far at his end.
- (iii) List of important GSS structures for which materials supplied and / or erected in India or elsewhere.
- (iv) Testing facilities available at Contractor's works.

16.0 DELIVERY:

The delivery shall be acceptable only in terms of supply of completed structures with all fasteners, spring washers etc. according to final B.O.M duly approved and as per Delivery Schedule – VIII of the specification. No payment shall however be made for part supply / supplies without fasteners / spring washers, etc.

You shall also provide one set of approved drawing and BOM to each consignee along with copy of letter approving the same.

17.0 PRICES:

17.1 The Bidder shall quote rate on variable price basis based on base date indicated at Schedule IV or IV-A, irrespective of the date of tender opening as detailed at Clause 1.09 'Prices' of Section – I of the specification. The price variation shall be payable / calculated on the basis of formula enclosed at Annexure – IV A, B, C.

However while quoting Freight & Insurance charges, it may be ensured that quoted rates also include cost of loading (at supplier's works) unloading and stacking (at consignee's stores) charges.

17.2 In case IEEMA changes the applicable formula for price variation and issue guide lines adopting the same during pendency of the contract, the new formula and guide lines shall become applicable.

17.3 IEEMA prices shall exclude excise duty and other taxes.

17.4 In addition to above the payment of price variation, as above, shall be governed by the following:

(i) When the material is offered within stipulated delivery schedule:

For allowing P. V. the date of delivery shall be considered the date on which material is notified as being ready for inspection (date of receipt of inspection call in the office, if the offered material is lying ready) or the date of actual delivery, which ever is beneficial to the Nigam.

(ii) When the material is offered after expiry of stipulated delivery schedule:

For allowing P.V. in the cases the supplies are made after the expiry of scheduled delivery, the price prevailing in the last month of the stipulated scheduled delivery or the date on which material is notified as being ready for inspection (date of receipt of inspection call in the office if the offered material is lying ready) or actual date of delivery whichever is beneficial to Nigam.

(iii) When the material is offered ahead of delivery schedule on the request of RVPN:

Normally supplies ahead of delivery schedule shall not be accepted. However in case of urgency of material, if supplies are accepted ahead of delivery schedule, PV shall be allowed on the basis the material is notified as being ready for inspection (date of receipt of inspection call in the office if the offered material is lying ready) or the actual date of delivery whichever is beneficial to Nigam.

(iv) When the material is offered ahead of delivery schedule by firm at their own and accepted by RVPN on the request of firm:

Normally the request of the firm to accept the material ahead of delivery schedule will not be accepted. In case firm offers supplies ahead of delivery schedule at their own and such request is accepted by RVPN, the price prevailing in the first months of stipulated delivery schedule or the date on which material is notified as being ready for inspection (date of receipt of inspection call in the office if the offered material is lying ready) or actual date of delivery whichever is beneficial to Nigam shall be allowed.

18.0 INSPECTION, TESTING & CHECKING:

18.1 The finished products before acceptance shall be subjected to inspection in respect of dimensional check up and testing as per IS: 2062 (latest amended), if not supported by certificate from main producer (viz. SAIL / TISCO / RINL). The certificate for type test (chemical composition & mechanical properties test) shall be furnished to this office along with inspection call, otherwise testing shall be arranged at independent / NABL accredited / Govt. approved Laboratory or shall be witnessed by the Inspecting Officer. However the marking of prime producer shall be verified physically by Inspecting Officer. If the same are in order then Inspecting Officer shall issue clearance subject to other satisfactory tests.

18.2 The inspection shall be carried out as per Clause no.1.27 “Inspection and Testing” of Section – II, General Conditions of Contract. However, the following facilities are to be provided by the supplier at his own costs to the inspecting officer of RVPN.

- i) Suitable accommodation to the inspecting officer of RVPN.
- ii) In case of joint inspection, single or shared double room accommodation shall be provided.
- iii) Local conveyance between arrival point, place of stay, works & departure point.
- iv) The firm shall assist in arranging return ticket and reservation on the request of the inspecting officer for which the payment shall be made by the inspecting officer.

19.0 SAMPLING:

For ascertaining the conformity of the lot to the requirement of this specification, the inspection shall be carried out on each lot separately. The number of pieces selected at random shall be to the extent as indicated below:-

- | | | |
|--------------------------------------|---|---|
| (a) Workmanship & dimension checking | : | 3% sample taken from each type of finished structure materials. |
| (b) Chemical test | : | One sample from every 50MT or part thereof of each section. |
| (c) Tensile test | : | One sample from every 50MT or part thereof of each section |
| (d) Bend test | : | One sample from every 50MT or part thereof of each section. |
| (e) Galvanisation test | : | One sample from every 50MT or part thereof of each section |

20.0 FREIGHT CHARGES:

The unit F.O.R. Destination prices to be quoted by the bidder in Schedule – IV shall be for delivery of material at our store(s) anywhere in the State of Rajasthan.

If the delivery of material is obtained from supplier’s works by the consignee(s) in departmental vehicle the aforesaid quoted price of F & I charges shall be deducted from the contract price.

21.0 DEPARTURE FROM SPECIFICATION:

Should the tenderer wish to deviate from the specification in any respect he should clearly state such departure indicating the reasons thereof. Unless these are done, the condition of this specification will hold good, and shall be binding on the supplier unless the departure are duly approved and conveyed in writing by the purchaser.

ANNEXURE – II

STATEMENT SHOWING UNIT WEIGHT OF VARIOUS STRUCTURES
AGAINST TN – 3745.

S. NO.	Type of Structure	Unit wt. of structure along with G.I. Bolts & Nuts and Spring Washers (MT)	Wt. of Structure (MT)	Wt. of G.I Bolts & Nuts (MT)	Wt. of Spring Washers (MT)
1	AT1	2.560979	2.478000	0.077705	0.005274
2	AT3	1.694150	1.642370	0.048280	0.003500
3	AT4	3.436822	3.305000	0.123758	0.008064
4	AT6	0.980670	0.945800	0.032460	0.002410
5	AT8	1.618004	1.570000	0.044881	0.003123
6	AB	1.544000	1.468000	0.071029	0.004971
7	BT1	1.790798	1.712000	0.073731	0.005067
8	BT3	1.324292	1.266230	0.054183	0.003879
9	BT4	2.594846	2.483590	0.104407	0.006849
10	BT6	0.700938	0.669000	0.029760	0.002178
11	BT7	1.186982	1.132000	0.051418	0.003564
12	BB1	0.810010	0.760000	0.046500	0.003510
13	AO1	1.097214	1.072400	0.023131	0.001683
14	AO1(T)	0.236476	0.229000	0.006963	0.000513
15	AO3	0.265388	0.255100	0.009568	0.000720
16	AO4	0.231212	0.221400	0.009128	0.000684
17	AO5	0.196600	0.183000	0.012700	0.000900
18	BO1	0.593172	0.572900	0.018904	0.001368
19	BO1(T)	0.171392	0.164200	0.006697	0.000495
20	P	0.089500	0.081700	0.007296	0.000504
21	Q w/o Stub	0.632500	0.614500	0.016866	0.001134
22	Q with Stub	0.713328	0.688500	0.023226	0.001602
23	R	0.440964	0.428500	0.011672	0.000792
24	GD Beam	0.540270	0.513200	0.025170	0.001900
25	X	0.050282	0.044000	0.005859	0.000423
26	Y w/o Stub	0.332140	0.313000	0.017840	0.001300
27	Y with Stub	0.385220	0.365000	0.018850	0.001370
28	Z	0.298513	0.289000	0.008883	0.000630
29	GF 5.4 Meter	0.250000	0.230000	0.018780	0.001220
30	33 kV CT Str.	0.196030	0.190300	0.005330	0.000400
31	X-15	0.248720	0.241300	0.006916	0.000504
32	PIS	0.171382	0.164000	0.006887	0.000495

ANNEXURE – III

STATEMENT SHOWING STEEL SECTIONS TO BE USED IN VARIOUS
GALVANISED STEEL STRUCTURES FOR 220 KV AND 132 KV GSS

S. No.	Type of Structure	Generally section involved			
		M. S. Angle	Unequal Angle	Thickness of Plate (in mm.)	Rod for Hanger / Bolt / D-Shackle (in mm)
1	AT1	150×12, 130×10, 110×8, 100×8, 75×6, 65×6, 50×6, 45×5.	45×30×5	12, 10, 8, 6	---
2	AT4	150×16, 150×12, 130×12, 110×10, 65×6, 45×5, 100×8, 50×5, 75×6.	45×30×5	12, 8, 6, 5, 4, 2	---
3	AT3	110×12, 110×8, 100×6, 45×5	45×30×5	8, 6	---
4	AT6	100×6, 100×8, 75×6, 45×5.	45×30×5	8, 6	---
5	AT8	110×10, 65×6, 45×5, 100×8, 50×5, 75×6, 50×6	45×30×5	12, 10, 8, 6	---
6	AB1	100×6, 100×8, 75×6	45×30×5	10, 8, 6	16/20
7	BT1	130×10, 100×8, 75×6, 65×6, 60×5, 45×5.		12, 8, 6	---
8	BT3	110×10, 100×8, 100×6, 55×5, 45×5, 65×6.	45×30×5	---	---
9	BT4	150×6, 100×6, 65×6, 50×5, 45×5, 60×5	---	---	--
10	BT6	90×6, 75×6, 65×6, 50×5, 45×5	----	6	---
11	BT7	110×10, 65×6, 75×6, 45×5, 50×6.	45×30×5	10, 8, 6	---
12	BB1	65×6, 75×6, 45×5.	45×30×5	10, 6	16/20
13	AO1	80×6, 75×6, 65×6, 50×6, 45×5	45×30×5	6	---
14	AO1(T)	80×6, 65×6, 50×6, 45×5	45×30×5	---	---
15	AO3	75×6, 50×6, 45×5	---	---	---
16	AO4	75×6, 50×6, 45×5	---	---	---
17	AO5	75×8, 75×6, 45×5.	---	6	---
18	BO1	100×8, 75×6, 65×6, 50×6, 45×5.	---	8, 6	---
19	BO1(T)	65×6, 45×5.	---	10	---
20	P	50×6, 45×5	45×30×5	10, 6	---
21	Q with Stub	100×8, 90×6, 75×6, 50×6, 45×5.	45×30×5	6, 5	---
22	Q w/o Stub	90×8, 75×6, 45×5	45×30×5	---	---
23	R	110×10, 100×8, 45×5.	----	---	---
24	GD Beam	75×6, 50×6, 45×5, 65×6.	---	6	16/20
25	X	45×6	45×30×5	12,6	---
26	Y with Stub	90×6, 65×6, 55×5, 50×6.	45×30×5	---	---
27	Y w/o Stub	90×6, 65×6, 50×6	45×30×5	---	---
28	Z	100×8	45×30×5	---	---
29	GF 5.4 mtr.	90×6, 75×6, 65×6, 50×6, 45×5.	45×30×5	10, 8, 6	16/20
30	33 kV CT Str.	90×6, 75×6, 65×6, 50×6, 45×5.	45×30×5	10, 8, 6	---
31	X-15	75×6, 50×6, 65×6, 45×5	---	6, 10	---
32	PIS	65×6	---	---	---

ANNEXURE – IV A

PRICE VARIATION FORMULA

PRICE VARIATION CLAUSE FOR FABRICATED AND GALVANISED
TRANSMISSION LINE TOWER
(FOR TRANSMISSION LINE TOWERS HAVING BOTH HEAVY AND LIGHT ANGLES)

The price quoted / confirmed is based on the input cost of raw materials / components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices and index numbers, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

(A) Transmission Line Tower with both Heavy and Light angles:

$$P = \frac{P_0}{100} \times \left(11 + 32 \times \frac{SBL}{SBL_0} + 25 \times \frac{SBI}{SBI_0} + 09 \times \frac{Zn}{Zn_0} + 23 \times \frac{W}{W_0} \right)$$

Wherein

P = Price payable as adjusted in accordance with the above formula.

P₀ = Price quoted / confirmed.

SBL₀ = Price of Steel Blooms (refer notes)

This price is as applicable on the first working day of the month, **one** month prior to the date of tendering.

SBI₀ = Price of Steel Billets (refer notes)

This price is as applicable on the first working day of the month, **one** month prior to the date of tendering.

Zn₀ = Price of electrolytic high grade zinc (refer notes)

This price is as applicable on the first working day of the month, **one** month prior to the date of tendering.

W₀ = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base 2001 = 100) (Refer notes).

This index number is as applicable on the first working day of the month, **three** months prior to the date of tendering.

For example, if date of tendering falls in May 2010, the applicable basic prices of Steel Blooms (SBL₀), Steel Billets (SBI₀) and Zinc (Zn₀) should be for the month April 2010 and all India average consumer price index number (W₀) should be for the month of February 2010.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA (PVC)/TLT-2010/_/_ one month prior to the date of tendering.

SBL = Price of Steel Bloom (refer notes)

This price is as applicable on the first working day of the month, **two** months prior to the date of delivery.

SBI = Price of Steel Billets (refer notes)

This price is as applicable on the first working day of the month, **two** months prior to the date of delivery.

Zn = Price of electrolytic high grade zinc (refer notes)

This price is as applicable on the first working day of the month, **two** months prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base : 2001 = 100) (refer notes).

This index number is as applicable on the first working day of the month, **four** months prior to the date of delivery.

For example, if date of delivery falls in December 2010, the applicable prices of Steel Blooms (SBL), Steel Billets (SBI) and Zinc (Zn) should be for the month October 2010 and all India average consumer price index number (W) should be for the month of August 2010.

The payment of Price Variation shall be governed by clause No. 17.4 of Section – III of specification.

Notes:

- (a) All prices of raw materials are exclusive of modvatable excise/CV duty amount and exclusive of any other central, state or local taxes; octroi etc.
- (b) All prices are as on first working day of the month.
- (c) The details of prices are as under:
 - (1) The prices of Steel Bloom are the average price of blooms of size 150mm × 150mm of all cities in Rs. / MT; as published by Joint Plant Committee (JPC), Kolkatta. Heavy angles of size above 110mm x 110mm are deemed to be related to this price.
 - (2) The prices of Steel Billet are the average price of billets of size 100mm of all cities in Rs. / MT; as published by Joint Plant Committee (JPC), Kolkatta. Light angles of size below & including 110mm x 110mm are deemed to be related to this price.
 - (3) The price of electrolytic high grade zinc (in Rs / MT) is ex-works price as quoted by the primary producer.
 - (4) Cost weightage of re-rolling / conversion charges is included in labour cost weightage (W).

ANNEXURE – IV B

PRICE VARIATION FORMULA

PRICE VARIATION CLAUSE FOR FABRICATED AND GALVANISED
TRANSMISSION LINE TOWER
(FOR TRANSMISSION LINE TOWER HAVING ONLY LIGHT ANGLES)

The price quoted / confirmed is based on the input cost of raw materials / components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices and index numbers, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

(C) Transmission line tower using only lighter angles:

$$P = \frac{P_0}{100} \times \left(11 + 57 \times \frac{SBI}{SBI_0} + 09 \times \frac{Zn}{Zn_0} + 23 \times \frac{W}{W_0} \right)$$

Wherein

P = Price payable as adjusted in accordance with the above formula.

P₀ = Price quoted / confirmed.

SBI₀ = Price of Steel Billets (refer notes)

This price is as applicable on the first working day of the month, **one** month prior to the date of tendering.

Zn₀ = Price of electrolytic high grade zinc (refer notes)

This price is as applicable on the first working day of the month, **one** month prior to the date of tendering.

W₀ = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base 2001 = 100) (Refer notes).

This index number is as applicable on the first working day of the month, **three** months prior to the date of tendering.

For example, if date of tendering falls in May 2010, the applicable basic prices of Steel Billets (SBI₀) and Zinc (Zn₀) should be for the month April 2010 and all India average consumer price index number (W₀) should be for the month of February 2010.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA (PVC)/TLT-2010/_/_ **one** month prior to the date of tendering.

SBI = Price of Steel Billets (refer notes)

This price is as applicable on the first working day of the month, **two** months prior to the date of delivery.

Zn = Price of electrolytic high grade zinc (refer notes)
This price is as applicable on the first working day of the month, **two** months prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base : 2001 = 100) (refer notes).
This index number is as applicable on the first working day of the month, **four** months prior to the date of delivery.

For example, if date of delivery falls in December 2010, the applicable prices of Steel Billets (SBI) and Zinc (Zn) should be for the month October 2010 and all India average consumer price index number (W) should be for the month of August 2010.

The payment of Price Variation shall be governed by clause No. 17.4 of Section – III of specification.

Notes:

- (a) All prices of raw materials are exclusive of modvatable excise/CV duty amount and exclusive of any other central, state or local taxes; octroi etc.
- (b) All prices are as on first working day of the month.
- (c) The details of prices are as under:
 - (1) The prices of Steel Billet are the average price of billets of size 100mm of all cities in Rs. / MT; as published by Joint Plant Committee (JPC), Kolkatta. Light angles of size below & including 110mm x 110mm are deemed to be related to this price.
 - (2) The price of electrolytic high grade zinc (in Rs / MT) is ex-works price as quoted by the primary producer.
 - (3) Cost weightage of re-rolling / conversion charges is included in labour cost weightage (W).

ANNEXURE – IV C

PRICE VARIATION FORMULA FOR G I BOLTS & NUTS AND ELECTRO- GALVANISED SPRING WASHERS

The price quoted / confirmed is based on the input cost of raw materials / components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices and index numbers, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

$$P_1 = \frac{P_0}{100} \times \left(11 + 57 \times \frac{SBL_1}{SBL_0} + 09 \times \frac{Zn_1}{Zn_0} + 23 \times \frac{W_1}{W_0} \right)$$

Where:

P = Price payable as adjusted in accordance with the above formula.

P₀ = Price quoted / confirmed.

SBL₀ = Price of Steel Blooms (refer notes)

This price is as applicable on the first working day of the month, **one** month prior to the date of tendering.

Zn₀ = Price of electrolytic high grade zinc (refer notes)

This price is as applicable on the first working day of the month, **one** month prior to the date of tendering.

W₀ = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base 2001 = 100) (Refer notes).

This index number is as applicable on the first working day of the month, **three** months prior to the date of tendering.

For example, if date of tendering falls in May 2010, the applicable basic prices of Steel Blooms (SBL₀), Steel Billets (SBI₀) and Zinc (Zn₀) should be for the month April 2010 and all India average consumer price index number (W₀) should be for the month of February 2010.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA (PVC)/TLT-2010/_/_ **one** month prior to the date of tendering.

SBL = Price of Steel Bloom (refer notes)

This price is as applicable on the first working day of the month, **two** months prior to the date of delivery.

Zn = Price of electrolytic high grade zinc (refer notes)

This price is as applicable on the first working day of the month, **two** months prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base : 2001 = 100) (refer notes).

This index number is as applicable on the first working day of the month, **four** months prior to the date of delivery.

For example, if date of delivery falls in December 2010, the applicable prices of Steel Blooms (SBL), Steel Billets (SBI) and Zinc (Zn) should be for the month October 2010 and all India average consumer price index number (W) should be for the month of August 2010.

The payment of Price Variation shall be governed by clause No. 17.4 of Section – III of specification.

Notes:

- (a) All prices of raw materials are exclusive of modvatable excise/CV duty amount and exclusive of any other central, state or local taxes; octroi etc.
- (b) All prices are as on first working day of the month.
- (c) The details of prices are as under:
 - (1) The prices of Steel Bloom are the average price of blooms of size 150mm × 150mm of all cities in Rs. / MT; as published by Joint Plant Committee (JPC), Kolkatta. Heavy angles of size above 110mm x 110mm are deemed to be related to this price.
 - (2) The price of electrolytic high grade zinc (in Rs / MT) is ex-works price as quoted by the primary producer.
 - (3) Cost weightage of re-rolling / conversion charges is included in labour cost weightage (W).

ANNEXURE – VCHARACTERSTIC / PROPERTIES REQUIRED

S. No.	Characteristics / Properties	Required
A.	PROPERTIES CLASS:	
i)	For Bolts:	5.6 as specified in IS:1367(Part-3)
ii)	For Nuts:	5 as specified in IS:1367(Part-6)
B.	CHEMICAL COMPOSITION:	
i)	For Bolts:	
a)	Carbon (% <i>Max.</i>)	0.55
b)	Phosphorous (% <i>Max.</i>)	0.05
c)	Sulphur (% <i>Max.</i>)	0.06
ii)	For Nuts:	
a)	Carbon (% <i>Max.</i>)	0.50
b)	Phosphorous (% <i>Max.</i>)	0.11
c)	Sulphur (% <i>Max.</i>)	0.15
C.	MECHANICAL PROPERTIES:	
i)	For Hexagonal Bolts:	
a)	Tensile strength (N / mm sq.)	500
b)	Yield stress (N / mm sq.)	300
c)	Stress under proof load (N / mm sq.)	280
d)	Brinell Hardness (HB) <i>Min.</i>	147
e)	Rockwell hardness (HRB) <i>Min.</i>	79
f)	Vickers hardness (HV) <i>Min.</i>	155
g)	Elongation after fracture (3 <i>Min.</i>)	20%
h)	Strength under wedge loading (N / mm sq.)	500
i)	Head soundness	No fracture
j)	Cantilever Load (Kg.)	150
ii)	For Hexagonal Nuts:	
a)	Proof stress (N / mm sq.)	490
b)	Vicker's Hardness (HV) <i>Max.</i>	302
D.	GALVANISING (HOT DIP MASS & EQT. THICKNESS OF COATING):	
i)	Max. average	
a)	Mass of coating (g / msq.)	375
b)	Thickness of coating (Micrometer)	54
ii)	Min. individual	
a)	Mass of coating (g / msq.)	300
b)	Thickness of coating (Micrometer)	43

SCHEDULE – III

TECHNICAL SPECIFICATION FOR FABRICATION, GALVANISING, TESTING AND SUPPLY OF COMPLETE PACKAGE OF GALVANISED STEEL STRUCTURES ALONG WITH REQUIRED G. I. BOLTS WITH NUTS (ISI MARKED), SPRING WASHERS, ETC. FOR 220 KV & 132 KV GRID SUB-STATIONS.

S. No.	Technical specification to which material confirm	Name of IS / other standard / specification to which material should conform.	Other particulars, if any.
1.	Fabricated, Galvanised steel Structures		
	a) Structural Steel	IS-2062 with latest amendments	Class `A'
	b) Fabrication	IS-802 with latest amendments	
	c) Rolling & Cutting tolerances	IS-1852 with latest amendments.	
	d) Galvanisation	IS-4759 with latest amendments	
2.	G.I. Bolts & Nuts (ISI marked)	IS:12427 with latest amendments IS:1363 with latest amendments	The bolt shall be of property class 5.6 and grade 'C'. The nuts shall be of property class 5 and grade 'C'.
3.	Electro-galvanised Spring washers	IS: 3063 & IS: 4072 with latest amendments	

Certified that we agree to all the aforesaid technical specification except at No..... for which our technical specification shall be as under :-

S. No.	Technical specification to which material confirm	Name of IS / other standard / specification to which material should conform.	Other particulars, if any.
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(Signature)
Name and Designation
with seal of the bidder

SCHEDULE – IV**PRICE SCHEDULE**

(Must be filled in by the tenderer & packed in the price bid envelope and returned with the tender)

The Superintending engineer (TLPC),
M. M. Building of RVPN,
Old Power House Premises (Back Side),
Near Ram Mandir, Bani Park, Jaipur – 302 006

With reference to your invitation to tender against Specification No. RVPN / SE / TLPC / Steel / A-IV / TN-3745, our prices are as given below:-

S. No.	Particulars of material	Tendered quantity (MT)	Qty. offered (MT)	Ex-works price per unit (RS./MT)	Excise duty incl. education Cess on ED per unit (Rs./MT)	CST / VAT per unit (Rs./MT)
1.	2.	3.	4.	5.	6.	7.
1.	FABRICATION, GALVANISING, TESTING AND SUPPLY OF COMPLETE PACKAGE OF GALVANISED STEEL STRUCTURES ALONG WITH REQUIRED G. I. BOLTS WITH NUTS (ISI MARKED), SPRING WASHERS, ETC. FOR 220 KV & 132 KV GRID SUB-STATIONS.	5605				

Freight per unit (Rs./MT)	Insurance per unit (Rs./MT)	FOR Destination price per unit (5+6+7+8+9) (Rs./MT)	Entry tax @ 4% (for out side Raj. Firms) (4%×10) (Rs./MT)	Unit FOR Destination price including Entry tax (Rs./MT)	Total FOR Destination price including Entry tax (Rs.)
8.	9.	10.	11.	12.	13.

1. **The prices are variable with base date 01.07.2011. Base date for this tender shall be 01.07.2011 irrespective of date of opening of tender.** We agree to the terms & conditions of payment of PV as per Clause no. 17.0 of specification.
2. Bidder shall furnish individual details in respect of all the column of price bid schedule separately. If excise duty including cess charges / CST or VAT indicated as inclusive, the bidder should indicate the present rate of applicable excise duty including of cess & CST / VAT. In case present applicable excise duty inclusive of Cess & CST / VAT is less than the maximum rate, the bidder confirms that they shall absorb the excise duty inclusive of cess and CST/ VAT up to the maximum rate during the currency of the contract.
3. RVPN is eligible for concessional rates of CST / VAT. Present concessional rate of VAT is 5% for which requisite certificate in the enclosed proforma (Appendix – I) shall be issued by the purchase officer

(Signature)
Name and Designation
with seal of the bidder

SCHEDULE – IV “A”

(Must be filled in by the tenderer and attach with Technical Bid Part-I)

The Superintending Engineer (TLPC),
M. M. Building of RVPN,
Old Power House Premises (Back Side),
Near Ram Mandir, Bani Park, Jaipur – 302 006

With reference to your invitation to tender against Specification no. RVPN / SE / TLPC / Steel / A-IV / TN - 3745, we agree to supply the following quantity:

Sl. No.	Particulars of material	Tendered Qty. (in MT)	Offered Qty. (in MT)
1.	FABRICATION, GALVANISING, TESTING AND SUPPLY OF COMPLETE PACKAGE OF GALVANISED STEEL STRUCTURES ALONG WITH REQUIRED G. I. BOLTS WITH NUTS (ISI MARKED), SPRING WASHERS, ETC. FOR 220 KV & 132 KV GRID SUB-STATIONS.	5605	

- The offer is valid for a period of **120 days** from the date of opening of this tender.
- The prices are variable with base date as **01.07.2011**. Base date for this tender shall be **01.07.2011** irrespective of date of opening of tender. We agree to the terms & conditions of payment of PV as per Clause no.17.0 of the specification.
- It is noted that the quantities as mentioned in the specification are approximate and we agree to supply the quantity as per your requirement.
- The delivery shall strictly be in accordance with your delivery clause as given in Schedule – VIII of this specification. In case, we fail to deliver the material as indicated in Schedule – VIII, we shall pay penalty as per Clause No. 1.24 of Section – II of this specification.
- The material shall conform to your specification No. RVPN / SE / TLPC / STEEL / A-IV / TN-3745 and as per relevant ISS in all respects.
- (a) VARIATION IN TAXES / DUTIES WITHIN CONTRACTUAL COMPLETION PERIOD: Any upward or downward variation in the effective rates of existing taxes / duties or change in financial liability due to introduction of new taxes / duties or abolition of existing taxes / duties within stipulated completion period shall be to RVPN's account and all taxes /duties shall be paid at actuals. However, supplier shall have to furnish supporting document(s) in the form of Gazette Notification for approval before claiming any upward variation.

(b) VARIATION IN TAXES / DUTIES AFTER EXPIRY OF CONTRACTUAL COMPLETION PERIOD: Any additional financial liability due to increase in rates of existing taxes / duties and introduction of new taxes and duties arising consequent upon failure of the supplier to adhere to the stipulated delivery schedule shall have to be borne by the supplier. However any reduction in financial liability due to abolition of existing taxes / duties or revision in the effective rate of taxes / duties after expiry of stipulated completion period shall be passed to RVPN.

7. We confirm that we agree to all the terms and conditions as well as the technical stipulations of your specification No. RVPN / SE / TLPC / STEEL / A-IV / TN-3745 and there are no deviations other than as specified in Schedule – VI (A & B).
8. RVPN is eligible for concessional rates of CST / VAT. Present concessional rate of VAT is 5% for which requisite certificate in the enclosed proforma (Appendix – I) shall be issued by the purchase officer.
9. **NOTE: The bidder shall quote for minimum 20% (twenty percent) of the NIT quantity failing which the offer may be considered non responsive.**

Yours faithfully,

(Signature)
Name & Designation
with seal of the bidder

SCHEDULE – V

SCHEDULE OF GUARANTEED AND OTHER TECHNICAL PARTICULARS FOR
GALVANISED STEEL STRUCTURES FOR 220 KV & 132 KV GRID SUB-STATIONS
AGAINST TN-3745

(To be filled in / confirmed by the bidder)

1. GENERAL:

- (a) Manufacturer's Name & address
 - (i) Name
 - (ii) Office Address
 - (iii) Works Address
- (b) Identification Mark

2. SPECIFICATION AND STANDARDS:

- (a) Quality of steel sections As per IS-2062; Grade - A
 - (i) Chemical Composition
 - ① Carbon % (Max.) 0.23
 - ② Manganese % (Max.) 1.50
 - ③ Sulphur % (Max.) 0.050
 - ④ Phosphorus % (Max.) 0.050
 - ⑤ Silicon % (Max.) 0.40
 - ⑥ C.E. % (Max.) 0.42
 - (ii) Mechanical Properties
 - ① UTS (MPa) (Min.) 410
 - ② Y. S. (MPa) (Min.) 240
 - ③ El. (%) (Min.) 23
- (b) Standard to which Galvanisation shall conform.
- (c) Minimum sheared edge distance
- (d) Minimum rolled edge distance
- (e) Quality of zinc used for Galvanisation
- (f) Max. percentage increase in structure weight due to Galvanisation
- (g) Quantity of zinc per M.T. of structure weight.

(Signature)
Name & Designation
with seal of the bidder

SCHEDULE – VI (A)

DEPARTURE / DEVIATION FROM TECHNICAL SPECIFICATION INCLUDING GTP

(TO BE FILLED IN BY BIDDER. DEPARTURE FROM TECHNICAL SPECIFICATION IF ANY INDICATED AT OTHER PLACES IN THE OFFER EXCEPT THIS SCHEDULE SHALL NOT BE CONSIDERED AS A DEVIATION)

The tenderer shall state under this schedule the departures from the purchaser's specification in respect of technical details and GTP are as under:-

S. No.	Name of the item	Purchaser's Specification Clause reference	Existing provision	Modifications desired	Remarks
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Certified that we agree to all Technical Specification including GTP of the NIT No. TN-3745 except for the deviation to the extent indicated above.

(Signature)
Name & Designation
with Seal of the bidder

SCHEDULE – VI (B)

DEPARTURE FROM COMMERCIAL TERMS & CONDITIONS OF THE
SPECIFICATION.

(TO BE FILLED IN BY BIDDER. DEPARTURE FROM COMMERCIAL TERMS AND CONDITIONS FROM THE SPECIFICATION IF ANY INDICATED AT OTHER PLACES IN THE OFFER EXCEPT THIS SCHEDULE SHALL NOT BE CONSIDERED AS A DEVIATION)

The tenderer shall state under this schedule the departures from the purchaser's specification in respect of commercial terms & condition as under:

S. No.	Name of the item	Purchaser's Specification Clause reference	Existing provision	Modifications desired	Remarks
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Certified that we agree to all commercial terms & conditions as laid down in General condition of contract of the Specification of NIT No.TN- 3745 except for the deviation to the extent indicated above.

(Signature)
Name & Designation
with Seal of the bidder

SCHEDULE – VIILIST OF PAST SUPPLIES

The tenderer shall state under this schedule whether materials, 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 the information regarding the name of purchasing organisation with complete address, quantities supplied and when the supplies were affected. This list should be in the form given below:-

S. No.	Detailed particulars of items supplied	Qty. in Nos.	Order No & date.	Name & details of purchasing authority with the name of contact person	Date of completion.
1.	2.	3.	4.	5.	6.

If executed partially, qty. pending for supply to be mentioned	Whether still to be executed	Delivery stipulated in purchase order	Remarks
7.	8.	9.	10.

Note :-

- i) **Separate schedule are to be furnished by the tenderer for past supply to the RVPN (Erstwhile RSEB), other state electricity Nigam and other department / organisation.**
- ii) This should be supported by the relevant Certificate of the Purchaser / User / Chartered Accountant duly signed by official seal.

(Signature)
Name & Designation
with Seal of the bidder

SCHEDULE – VIII**DELIVERY SCHEDULE**

The delivery schedule for supply of Complete package of Galvanised steel Structures along with required G. I. Bolts & Nuts, Spring Washers, etc. for 220 kV & 132 kV Grid Sub-stations shall be as mentioned hereunder:-

Sl. No.	Particulars of material	Commencement period	Rate of supply	Period for completion of delivery of entire material
1.	Complete package of Galvanised steel Structures along with required G.I. Bolts & Nuts, Spring Washers, etc.	From the date of issue of PO or issue of drawings of ordered structures.	(i) First lot of 40% of the ordered quantity.	(i) Within Four months from the date of issue of PO or issue of drawings of the ordered structures.
			(ii) Second lot of 30% of the ordered quantity.	(ii) Between Fifth to Seventh month from the date of issue of PO or issue of drawings of the ordered structures.
			(iii) Third and the last lot of 30% of the ordered quantity.	(iii) Between Eighth to Tenth month from the date of issue of PO or issue of drawings of the ordered structures.

Note: The above delivery schedule can be revised by the purchaser at his discretion.

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

SCHEDULE – IX

LIST OF EQUIPMENTS AND TECHNICAL HANDS AVAILABLE WITH THE FIRM

(To be filled in by the tenderer & sent with the tender)

Manufacturers and / or their authorised agents who are quoting against this tender are requested to furnish the following information along with the tender. The purchaser will have the discretion to ignore the tender without the under noted particulars and / or ignore the tender 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 along with the names of organisation 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) D.G.T.D.
 - iii) State Industries Department.

(Signature)
Name & Designation
with seal of the bidder

APPENDIX – I
(Certificate Regarding VAT)

CERTIFICATE

I, _____ (name) _____ (designation)
_____ (name of Company) do certify that the
goods purchased from Shri / M/s. _____ having Registration no.
(TIN) _____ amounting to Rs. _____ (in words also)
_____ vide VAT Invoice No. _____ dated
_____ have been purchased by M/s. _____ (name
of purchasing company) for the purpose of exclusive use by it in the generation, transmission
or distribution of electric power.

(Seal of the duly authorized officer of the company)

Place:

Date:

Signature _____
Designation of the authorized officer of the Company

Annexure-VI

**REAL TIME GROSS SETTLEMENT (RTGS) / NATIONAL ELECTRONIC FUND
TRANSFER (NEFT)**

Form : M/s _____

The Sr. Accounts Officer (CPC),
RVPNL
Jaipur.

Sub: RTGS / NEFT payments.

We refer to remittance of our payments using RBI's RTGS/NEFT. Our payments may be made through the above system to our under noted account at our cost:-

Name of city	
Bank Code No.	
Branch Code No.	
Bank's Name	
Branch Address	
Branch Telephone / Fax No.	
Supplier's Account No.	
Type of Account	
IFSC Code for NEFT	
IFSC Code for RTGS	
Supplier's Name as per Account	
Telephone No. of Supplier	
Supplier's E-mail ID	

Confirmed by Banker.

Signature of supplier with Stamp & Address

**ADDITIONAL ADDENDUM / CORRIGENDUM TO
SECTION-II
GENERAL CONDITIONS OF CONTRACT**

1- **Clause 1.56.3:**

The Clause no. 1.56.3 be replaced as:-

The RVPN has constituted the centralized standing committee for settlement of disputed claims under conditions of contract relating to RVPN.

The committee shall consider all cases for settlement of disputed claims relating to purchases, works, turnkey contracts and labour contracts, civil works etc. The committee shall also take decision whether a particular matter is required to be referred to the Board for approval before settlement. The matter for settlement shall only be referred to be centralized standing committee of RVPN by following the guide lines detailed below:

- (a) Disputes will be referred contract wise.
- (b) Disputes involving amount above Rs. 1.00 lacs only will be referred / entertained.
- (c) Non-refundable fee shall be deposited by the contractor / firm subject to maximum fee of Rs. 1.00 lac.
- (d) In case of disputes, application for settlement (only in prescribed format) may be collected from the purchaser office.

The centralized standing committee fee shall be deposited in cash / demand draft / pay order with the Accounts Officer (TLPC), RVPN, Jaipur and the firm(s) / Contractor(s) shall furnish receipt thereof with a request for referring their disputes to the centralized standing committee for decision.

For settlement, the firm shall furnish their application (only in prescribed format) indicating the details of dispute / grievances along with requisite settlement fee, within a period of six months, after receiving communication from MM Wing giving rise to cause of dispute / grievances.

2- **Clause no. 1.60 Price Fall**

The following is added to the Clause no. 1.60 read alongwith its addendum / corrigendum appearing at Sr. no. 5.

The price fall clause will be applicable from the date of opening of price bid of subsequent tender.